It Security Metrics A Practical Framework For Measuring Security Protecting Data

A culture hacking how to complete with strategies, techniques, and resources for securing the most volatile element of information security—humans People-Centric Security: Transforming Your Enterprise Security Culture addresses the urgent need for change at the intersection of people and security. Esentially a complete security culture toolkit, this comprehensive resource provides you with a blueprint for assessing, designing, building, and maintaining human firewalls. Globally recognized information security expert Lance Hayden lays out a course of action for drastically improving organizations' security cultures through the precise use of mapping, survey, and analysis. You'll discover applied techniques for embedding strong security practices into the daily routines of IT users and learn how to implement a practical, executable, and measurable program for human security. Features downloadable mapping and surveying templates Case studies throughout showcase the methods explained in the book Valuable appendices detail security tools and cultural threat and risk modeling Written by an experienced author and former CIA human

intelligence officer
From Corporate Security to Commercial Force: A Business Leader's Guide to Security Economics addresses important issues, such as understanding security related costs, the financial advantages of security, running an efficient security organization, and measuring the impact of incidents and losses. The book guides readers in identifying, understanding, quantifying, and measuring the direct and economic benefits of security for a business, its processes, products, and consequently, profits. It quantifies the security function and explains the never-before analyzed tangible advantages of security for core business processes. Topics go far beyond simply proving that security is an expense for a company by providing business leaders and sales and marketing professionals with actual tools that can be used for advertising products, improving core services, generating sales, and increasing profits. Highlights and offers insight on issues such as the role of security in advertising and its actual marketing appeal and sales potential Features tools that can be implemented by readers in order to improve key business processes Offers advice for improving key business processes, improving the reputation of the company, the marketing appeal of products, (or services) and helping to increase sales 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

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.

Information security metrics are seen as an important factor in making sound decisions about various aspects of security, ranging from the design of security architectures and controls to the effectiveness and efficiency of security operations. Security metrics strive to offer a quantitative and objective basis for security assurance. During the last few decades, researchers have made various attempts to develop measures and systems of measurement for computer security with varying degrees of success. This paper provides an overview of the security metrics area and looks at possible avenues of research that could be pursued to advance the state of the art.

The overwhelming majority of a software system’s lifespan is spent in use, not in design or

implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use
The revised second edition of Measures and Metrics in Corporate Security is an indispensable guide to creating and managing a security metrics program. Authored by George Campbell, emeritus faculty of the Security Executive Council and former chief security officer of Fidelity Investments, this book

shows how to improve security's bottom line and add value to the business. It provides a variety of organizational measurements, concepts, metrics, indicators and other criteria that may be employed to structure measures and metrics program models appropriate to the reader's specific operations and corporate sensitivities. There are several hundred examples of security metrics included in Measures and Metrics in Corporate Security, which are organized into categories of security services to allow readers to customize metrics to meet their operational needs. Measures and Metrics in Corporate Security is a part of Elsevier's Security Executive Council Risk Management Portfolio, a collection of real world solutions and "how-to" guidelines that equip executives, practitioners, and educators with proven information for successful security and risk management programs. Describes the basic components of a metrics program, as well as the business context for metrics Provides guidelines to help security managers leverage the volumes of data their security operations already create Identifies the metrics security executives have found tend to best serve security's unique (and often misunderstood) missions Includes 375 real examples of security metrics across 13 categories While it has become increasingly apparent that individuals and organizations need a security metrics program, it has been exceedingly difficult to define

exactly what that means in a given situation. There are hundreds of metrics to choose from and an organization's mission, industry, and size will affect the nature and scope of the task as well as
Provides predictive security metrics with R—security, analytics, and programming Massive data breaches and discussions surrounding improving technology security have been topics of intense interest over the past several years. Security failures by organizations such as Equifax, Uber, the U.S Securities and Exchange Commission, and the Republican National Committee, amongst many others, impacted millions of Americans. There is no disputing the importance of effective cybersecurity technologies and practices, yet measuring security effectiveness within corporations and other entities has proved to be a challenge. The Metrics Manifesto examines security metrics with R, the popular open-source programming language and software development environment for statistical computing. This timely, fully up-to-date guide focuses on applied measurement that proves or disproves information security effectiveness. Comprehensive, detailed chapters discuss security, predictive analytics, and programming with R. Author Richard Seiersen presents an innovative approach to security metrics, looking to fields such as the sciences and professional sports to improve measurement. A valuable tool for discovering how to improve IT security procedures, this important book: Uncovers the truths about an organization’s security programs Explains how processing data with R can measure security improvements Helps technology security teams identify and rectify security weaknesses Offer practical insights from a leading security expert with two decade’s experience in information security, risk management, and product development Includes a downloadable applied

tutorial new R users The Metrics Manifesto: Confronting Security with Data is an essential resource for IT security managers, risk managers, statisticians, and other security professionals.

This report presents a framework for the development of metrics--and a method for scoring them--that indicates how well a U.S. Air Force mission or system is expected to perform in a cyber-contested environment. There are two types of cyber metrics: working-level metrics to counter an adversary's cyber operations and institutional-level metrics to capture any cyber-related organizational deficiencies.

Cyber Security Engineering is the definitive modern reference and tutorial on the full range of capabilities associated with modern cyber security engineering. Pioneering software assurance experts Dr. Nancy R. Mead and Dr. Carol C. Woody bring together comprehensive best practices for building software systems that exhibit superior operational security, and for considering security throughout your full system development and acquisition lifecycles. Drawing on their pioneering work at the Software Engineering Institute (SEI) and Carnegie Mellon University, Mead and Woody introduce seven core principles of software assurance, and show how to apply them coherently and systematically. Using these principles, they help you prioritize the wide range of possible security actions available to you, and justify the required investments. Cyber Security Engineering guides you through risk analysis, planning to manage secure software development, building organizational models, identifying required and missing competencies, and defining and structuring metrics. Mead and Woody address important topics, including the use of standards, engineering security requirements for acquiring COTS software, applying DevOps, analyzing malware to anticipate future vulnerabilities, and planning ongoing improvements. This book will be valuable to

wide audiences of practitioners and managers with responsibility for systems, software, or quality engineering, reliability, security, acquisition, or operations. Whatever your role, it can help you reduce operational problems, eliminate excessive patching, and deliver software that is more resilient and secure.

Features a useful collection of important and practical papers on applying software metrics and measurement. The book details the importance of planning a successful measurement program with a complete discussion of why, what, where, when, and how to measure and who should be involved. Each chapter addresses these significant questions and provides the essential answers in building an effective measurement program. The book differs from others on the market by focusing on the application of the metrics rather than the metrics themselves. The author's provide information based on actual experience with successful metrics programs. Each chapter includes a case study focusing on technology transfer and a set of recommended references. The book serves as a guide on the use and application of software metrics in industrial environments. It is specially designed for managers, product supervisors, and quality assurance personnel who want to know how to implement a metrics program.

IT Security Metrics: A Practical Framework for Measuring Security & Protecting DataMcgraw-hill

Presents information on how to analyze risks to your networks and the steps needed to select and deploy the appropriate countermeasures to reduce your exposure to physical and network threats. Also imparts the skills and knowledge needed to identify and counter some fundamental security risks and requirements, including Internet security threats and measures (audit trails IP sniffing/spoofing etc.) and how to implement security policies and procedures. In

addition, this book covers security and network design with respect to particular vulnerabilities and threats. It also covers risk assessment and mitigation and auditing and testing of security systems as well as application standards and technologies required to build secure VPNs, configure client software and server operating systems, IPsec-enabled routers, firewalls and SSL clients. This comprehensive book will provide essential knowledge and skills needed to select, design and deploy a public key infrastructure (PKI) to secure existing and future applications. * Chapters contributed by leaders in the field cover theory and practice of computer security technology, allowing the reader to develop a new level of technical expertise * Comprehensive and up-to-date coverage of security issues facilitates learning and allows the reader to remain current and fully informed from multiple viewpoints * Presents methods of analysis and problem-solving techniques, enhancing the reader's grasp of the material and ability to implement practical solutions Security problems have evolved in the corporate world because of technological changes, such as using the Internet as a means of communication. With this, the creation, transmission, and storage of information may represent security problem. Metrics and Methods for Security Risk Management is of interest, especially since the 9/11 terror attacks, because it addresses the ways to manage risk security in the corporate world. The book aims to provide information about the fundamentals of security risks and the corresponding components, an analytical approach to risk assessments and mitigation, and quantitative methods to assess the risk components. In addition, it also discusses the physical models, principles, and quantitative methods needed to assess the risk components. The by-products of the methodology used include security standards, audits, risk metrics, and program frameworks. Security professionals, as

well as scientists and engineers who are working on technical issues related to security problems will find this book relevant and useful. Offers an integrated approach to assessing security risk Addresses homeland security as well as IT and physical security issues Describes vital safeguards for ensuring true business continuity

Master cutting-edge techniques and countermeasures to protect your organization from live hackers. Learn how to harness cyber deception in your operations to gain an edge over the competition. Key Features Gain an advantage against live hackers in a competition or real computing environment Understand advanced red team and blue team techniques with code examples Learn to battle in short-term memory, whether remaining unseen (red teams) or monitoring an attacker's traffic (blue teams) Book Description Little has been written about what to do when live hackers are on your system and running amok. Even experienced hackers tend to choke up when they realize the network defender has caught them and is zoning in on their implants in real time. This book will provide tips and tricks all along the kill chain of an attack, showing where hackers can have the upper hand in a live conflict and how defenders can outsmart them in this adversarial game of computer cat and mouse. This book contains two subsections in each chapter, specifically focusing on the offensive and defensive teams. It begins by introducing you to adversarial operations and principles of computer conflict where you will explore the core principles of deception, humanity, economy, and more about human-on-human conflicts. Additionally, you will understand everything from planning to setting up infrastructure and tooling that both sides should have in place. Throughout this book, you will learn how to gain an advantage over opponents by disappearing from what they can detect. You will further understand how to blend in, uncover other actors' motivations

and means, and learn to tamper with them to hinder their ability to detect your presence. Finally, you will learn how to gain an advantage through advanced research and thoughtfully concluding an operation. By the end of this book, you will have achieved a solid understanding of cyberattacks from both an attacker's and a defender's perspective. What you will learn Understand how to implement process injection and how to detect it Turn the tables on the offense with active defense Disappear on the defender's system, by tampering with defensive sensors Upskill in using deception with your backdoors and countermeasures including honeypots Kick someone else from a computer you are on and gain the upper hand Adopt a language agnostic approach to become familiar with techniques that can be applied to both the red and blue teams Prepare yourself for real-time cybersecurity conflict by using some of the best techniques currently in the industry Who this book is for Pentesters to red teamers, security operations center analysts to incident responders, attackers, defenders, general hackers, advanced computer users, and security engineers should gain a lot from this book. This book will also be beneficial to those getting into purple teaming or adversarial simulations, as it includes processes for gaining an advantage over the other team. Basic knowledge of Python programming, Go programming, Bash, PowerShell, and systems administration is desirable. Furthermore, knowledge of incident response and Linux is beneficial. Prior exposure to cybersecurity, penetration testing, and ethical hacking basics is desirable.

Security Smarts for the Self-Guided IT Professional “An extraordinarily thorough and sophisticated explanation of why you need to measure the effectiveness of your security program and how to do it. A must-have for any quality security program!” —Dave Cullinane, CISSP, CISO & VP, Global Fraud, Risk & Security, eBay Learn how to

communicate the value of an information security program, enable investment planning and decision making, and drive necessary change to improve the security of your organization. Security Metrics: A Beginner's Guide explains, step by step, how to develop and implement a successful security metrics program. This practical resource covers project management, communication, analytics tools, identifying targets, defining objectives, obtaining stakeholder buy-in, metrics automation, data quality, and resourcing. You'll also get details on cloud-based security metrics and process improvement. Templates, checklists, and examples give you the hands-on help you need to get started right away. Security Metrics: A Beginner's Guide features: Lingo--Common security terms defined so that you're in the know on the job IMHO--Frank and relevant opinions based on the author's years of industry experience Budget Note--Tips for getting security technologies and processes into your organization's budget In Actual Practice--Exceptions to the rules of security explained in real-world contexts Your Plan--Customizable checklists you can use on the job now Into Action--Tips on how, why, and when to apply new skills and techniques at work Caroline Wong, CISSP, was formerly the Chief of Staff for the Global Information Security Team at eBay, where she built the security metrics program from the ground up. She has been a featured speaker at RSA, ITWeb Summit, Metricon, the Executive Women's Forum, ISC2, and the Information Security Forum.

This book guides readers through building an IT security plan. Offering a template, it helps readers to prioritize risks, conform to regulation, plan their defense and secure proprietary/confidential information. The process is documented in the supplemental online security workbook. Security Planning is designed for the busy IT practitioner, who does not have time to become a security expert, but needs a

security plan now. It also serves to educate the reader of a broader set of concepts related to the security environment through the Introductory Concepts and Advanced sections. The book serves entry level cyber-security courses through those in advanced security planning. Exercises range from easier questions to the challenging case study. This is the first text with an optional semester-long case study: Students plan security for a doctor's office, which must adhere to HIPAA regulation. For software engineering-oriented students, a chapter on secure software development introduces security extensions to UML and use cases (with case study). The text also adopts the NSA's Center of Academic Excellence (CAE) revamped 2014 plan, addressing five mandatory and 15 Optional Knowledge Units, as well as many ACM Information Assurance and Security core and elective requirements for Computer Science.

How the obsession with quantifying human performance threatens business, medicine, education, government—and the quality of our lives Today, organizations of all kinds are ruled by the belief that the path to success is quantifying human performance, publicizing the results, and dividing up the rewards based on the numbers. But in our zeal to instill the evaluation process with scientific rigor, we've gone from measuring performance to fixating on measuring itself—and this tyranny of metrics now threatens the quality of our organizations and lives. In this brief, accessible, and powerful book, Jerry Muller uncovers the damage metrics are causing and shows how we can begin to fix the problem. Filled with examples from business, medicine, education, government, and other fields, the book explains why paying for measured performance doesn't work, why surgical scorecards may increase deaths, and much more. But Muller also shows that, when used as a complement to judgment based on personal experience, metrics can be beneficial, and he includes an

invaluable checklist of when and how to use them. The result is an essential corrective to a harmful trend that increasingly affects us all.

The IT Security Governance Guidebook with Security Program Metrics on CD-ROM provides clear and concise explanations of key issues in information protection, describing the basic structure of information protection and enterprise protection programs. Including graphics to support the information in the text, this book includes both an overview of material as well as detailed explanations of specific issues. The accompanying CD-ROM offers a collection of metrics, formed from repeatable and comparable measurement, that are designed to correspond to the enterprise security governance model provided in the text, allowing an enterprise to measure its overall information protection program.

Leverage Azure security services to architect robust cloud solutions in Microsoft Azure Key Features Secure your Azure cloud workloads across applications and networks Protect your Azure infrastructure from cyber attacks Discover tips and techniques for implementing, deploying, and maintaining secure cloud services using best practices Book Description Security is always integrated into cloud platforms, causing users to let their guard down as they take cloud security for granted.Cloud computing brings new security challenges, but you can overcome these with Microsoft Azure's shared responsibility model. Mastering Azure Security covers the latest security features provided by Microsoft to identify different threats and protect your Azure cloud using innovative techniques. The book takes you through the built-in security controls and the multi-layered security features offered by Azure to protect cloud workloads across apps and networks. You'll get to grips with using Azure Security Center for unified security management, building secure application

gateways on Azure, protecting the cloud from DDoS attacks, safeguarding with Azure Key Vault, and much more. Additionally, the book covers Azure Sentinel, monitoring and auditing, Azure security and governance best practices, and securing PaaS deployments. By the end of this book, you'll have developed a solid understanding of cybersecurity in the cloud and be able to design secure solutions in Microsoft Azure. What you will learn Understand cloud security concepts Get to grips with managing cloud identities Adopt the Azure security cloud infrastructure Grasp Azure network security concepts Discover how to keep cloud resources secure Implement cloud governance with security policies and rules Who this book is for This book is for Azure cloud professionals, Azure architects, and security professionals looking to implement secure cloud services using Azure Security Centre and other Azure security features. A fundamental understanding of security concepts and prior exposure to the Azure cloud will help you understand the key concepts covered in the book more effectively.

The Growing Imperative Need for Effective Information Security Governance With monotonous regularity, headlines announce ever more spectacular failures of information security and mounting losses. The succession of corporate debacles and dramatic control failures in recent years underscores the necessity for information security to be tightly integrated into the fabric of every organization. The protection of an organization's most valuable asset information can no longer be relegated to low-level technical personnel, but must be considered an essential element of corporate governance that is critical to organizational success and survival. Written by an industry expert, Information Security Governance is the first book-length treatment of this important topic, providing readers with a step-by-step approach to developing and managing an effective information security program.

Beginning with a general overview of governance, the book covers: The business case for information security Defining roles and responsibilities Developing strategic metrics Determining information security outcomes Setting security governance objectives Establishing risk management objectives Developing a cost-effective security strategy A sample strategy development The steps for implementing an effective strategy Developing meaningful security program development metrics Designing relevant information security management metrics Defining incident management and response metrics Complemented with action plans and sample policies that demonstrate to readers how to put these ideas into practice, Information Security Governance is indispensable reading for any professional who is involved in information security and assurance.

A ground shaking exposé on the failure of popular cyber risk management methods How to Measure Anything in Cybersecurity Risk exposes the shortcomings of current "risk management" practices, and offers a series of improvement techniques that help you fill the holes and ramp up security. In his bestselling book How to Measure Anything, author Douglas W. Hubbard opened the business world's eyes to the critical need for better measurement. This book expands upon that premise and draws from The Failure of Risk Management to sound the alarm in the cybersecurity realm. Some of the field's premier risk management approaches actually create more risk than they mitigate, and questionable methods have been duplicated across industries and embedded in the products accepted as gospel. This book sheds light on these blatant risks, and provides alternate techniques that can help improve your current situation. You'll also learn which approaches are too risky to save, and are actually more damaging than a total lack of any security. Dangerous risk management methods abound; there is no

industry more critically in need of solutions than cybersecurity. This book provides solutions where they exist, and advises when to change tracks entirely. Discover the shortcomings of cybersecurity's "best practices" Learn which risk management approaches actually create risk Improve your current practices with practical alterations Learn which methods are beyond saving, and worse than doing nothing Insightful and enlightening, this book will inspire a closer examination of your company's own risk management practices in the context of cybersecurity. The end goal is airtight data protection, so finding cracks in the vault is a positive thing—as long as you get there before the bad guys do. How to Measure Anything in Cybersecurity Risk is your guide to more robust protection through better quantitative processes, approaches, and techniques.

PART I: FUNDAMENTALS OF MEASUREMENT AND EXPERIMENTATION 1. Measurement: What Is It and Why Do It? 2. The Basics of Measurement 3. A Goal-Based Framework for Software Measurement 4. Empirical Investigation 5. Software Metrics Data Collection 6. Analyzing Software-Measurement Data PART II: SOFTWARE-ENGINEERING MEASUREMENT 7. Measuring Internal Product Attributes: Size 8. Measuring Internal Product Attributes: Structure 9. Measuring Internal Product Attributes 10. Software Reliability: Measurement and Prediction 11. Resource Measurement: Productivity, Teams, and Tools 12. Making Process Predictions PART III: MEASUREMENT AND MANAGEMENT 13. Planning a Measurement Program 14. Measurement in Practice 15. Empirical Research in Software Engineering APPENDIXES: A. Solutions to Selected Exercises / B. Metric Tools / C. Acronyms and Glossary / ANNOTATED BIBLIOGRAPHY / INDEX

This book is the first publication to give a

comprehensive, structured treatment to the important topic of situational awareness in cyber defense. It presents the subject in a logical, consistent, continuous discourse, covering key topics such as formation of cyber situational awareness, visualization and human factors, automated learning and inference, use of ontologies and metrics, predicting and assessing impact of cyber attacks, and achieving resilience of cyber and physical mission. Chapters include case studies, recent research results and practical insights described specifically for this book. Situational awareness is exceptionally prominent in the field of cyber defense. It involves science, technology and practice of perception, comprehension and projection of events and entities in cyber space. Chapters discuss the difficulties of achieving cyber situational awareness – along with approaches to overcoming the difficulties - in the relatively young field of cyber defense where key phenomena are so unlike the more conventional physical world. Cyber Defense and Situational Awareness is designed as a reference for practitioners of cyber security and developers of technology solutions for cyber defenders. Advanced-level students and researchers focused on security of computer networks will also find this book a valuable resource.

Uncover hidden patterns of data and respond withcountermeasures Security professionals need all

the tools at their disposal toincrease their visibility in order to prevent security breaches andattacks. This careful guide explores two of the most powerful data analysis and visualization. You'll soon understand how toharness and wield data, from collection and storage to managementand analysis as well as visualization and presentation. Using ahands-on approach with real-world examples, this book shows you howto gather feedback, measure the effectiveness of your securitymethods, and make better decisions. Everything in this book will have practical application forinformation security professionals. Helps IT and security professionals understand and use data, sothey can thwart attacks and understand and visualizevulnerabilities in their networks Includes more than a dozen real-world examples and hands-onexercises that demonstrate how to analyze security data andintelligence and translate that information into visualizationsthat make plain how to prevent attacks Covers topics such as how to acquire and prepare security data,use simple statistical methods to detect malware, predict roguebehavior, correlate security events, and more Written by a team of well-known experts in the field ofsecurity and data analysis Lock down your networks, prevent hacks, and thwart malware byimproving visibility into the environment, all through the power ofdata and Security Using Data Analysis, Visualization, andDashboards.

Do you have a nagging feeling that your monitoring needs improvement, but you just aren't sure where to start or how to do it? Are you plagued by constant, meaningless alerts? Does your monitoring system routinely miss real problems? This is the book for you. Mike Julian lays out a practical approach to designing and implementing effective monitoring—from your enterprise application down to the hardware in a datacenter, and everything between. Practical Monitoring provides you with straightforward strategies and tactics for designing and implementing a strong monitoring foundation for your company. This book takes a unique vendor-neutral approach to monitoring. Rather than discuss how to implement specific tools, Mike teaches the principles and underlying mechanics behind monitoring so you can implement the lessons in any tool. Practical Monitoring covers essential topics including: Monitoring antipatterns Principles of monitoring design How to build an effective on-call rotation Getting metrics and logs out of your application

This 60-minute recorded webinar features information security expert Dr. Lance Hayden, author of "IT Security Metrics: A Practical Framework for Measuring Security and Protecting Data " (McGraw-Hill, 2010), which is used by organizations around the world as a foundation for measuring security programs and educating industry professionals.

Security Operations Center Guidebook: A Practical Guide for a Successful SOC provides everything security professionals need to create and operate a world-class Security Operations Center. It starts by helping professionals build a successful business case using financial, operational, and regulatory requirements to support the creation and operation of an SOC. It then delves into the policies and procedures necessary to run an effective SOC and explains how to gather the necessary metrics to persuade upper management that a company's SOC is providing value. This comprehensive text also covers more advanced topics, such as the most common Underwriter Laboratory (UL) listings that can be acquired, how and why they can help a company, and what additional activities and services an SOC can provide to maximize value to a company. Helps security professionals build a successful business case for a Security Operations Center, including information on the necessary financial, operational, and regulatory requirements Includes the required procedures, policies, and metrics to consider Addresses the often opposing objectives between the security department and the rest of the business with regard to security investments Features objectives, case studies, checklists, and samples where applicable

The Definitive Guide to Quantifying, Classifying, and Measuring Enterprise IT Security Operations

Security Metrics is the first comprehensive best-practice guide to defining, creating, and utilizing security metrics in the enterprise. Using sample charts, graphics, case studies, and war stories, Yankee Group Security Expert Andrew Jaquith demonstrates exactly how to establish effective metrics based on your organization's unique requirements. You'll discover how to quantify hard-to-measure security activities, compile and analyze all relevant data, identify strengths and weaknesses, set cost-effective priorities for improvement, and craft compelling messages for senior management. Security Metrics successfully bridges management's quantitative viewpoint with the nuts-and-bolts approach typically taken by security professionals. It brings together expert solutions drawn from Jaquith's extensive consulting work in the software, aerospace, and financial services industries, including new metrics presented nowhere else. You'll learn how to: • Replace nonstop crisis response with a systematic approach to security improvement • Understand the differences between "good" and "bad" metrics • Measure coverage and control, vulnerability management, password quality, patch latency, benchmark scoring, and business-adjusted risk • Quantify the effectiveness of security acquisition, implementation, and other program activities • Organize, aggregate, and analyze your data to bring out key insights • Use visualization to

understand and communicate security issues more clearly • Capture valuable data from firewalls and antivirus logs, third-party auditor reports, and other resources • Implement balanced scorecards that present compact, holistic views of organizational security effectiveness

Summary Agile Metrics in Action is a rich resource for agile teams that aim to use metrics to objectively measure performance. You'll learn how to gather data that really counts, along with how to effectively analyze and act upon the results. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book The iterative nature of agile development is perfect for experience-based, continuous improvement. Tracking systems, test and build tools, source control, continuous integration, and other built-in parts of a project lifecycle throw off a wealth of data you can use to improve your products, processes, and teams. The question is, how to do it? Agile Metrics in Action teaches you how. This practical book is a rich resource for an agile team that aims to use metrics to objectively measure performance. You'll learn how to gather the data that really count, along with how to effectively analyze and act upon the results. Along the way, you'll discover techniques all team members can use for better individual accountability and team performance. Practices in this book will work with

any development process or tool stack. For code-based examples, this book uses Groovy, Grails, and MongoDB. What's Inside Use the data you generate every day from CI and Scrum Improve communication, productivity, transparency, and morale Objectively measure performance Make metrics a natural byproduct of your development process About the Author Christopher Davis has been a software engineer and team leader for over 15 years. He has led numerous teams to successful delivery using agile methodologies. Table of Contents PART 1 MEASURING AGILE TEAMS Measuring agile performance Observing a live project PART 2 COLLECTING AND ANALYZING YOUR TEAM'S DATA Trends and data from project-tracking systems Trends and data from source control Trends and data from CI and deployment servers Data from your production systems PART 3 APPLYING METRICS TO YOUR TEAMS, PROCESSES, AND SOFTWARE Working with the data you're collecting: the sum of the parts Measuring the technical quality of your software Publishing metrics Measuring your team against the agile principles

User authentication is the process of verifying whether the identity of a user is genuine prior to granting him or her access to resources or services in a secured environment. Traditionally, user authentication is performed statically at the point of

entry of the system; however, continuous authentication (CA) seeks to address the shortcomings of this method by providing increased session security and combating insider threat. Continuous Authentication Using Biometrics: Data, Models, and Metrics presents chapters on continuous authentication using biometrics that have been contributed by the leading experts in this recent, fast growing research area. These chapters collectively provide a thorough and concise introduction to the field of biometric-based continuous authentication. The book covers the conceptual framework underlying continuous authentication and presents detailed processing models for various types of practical continuous authentication applications.

This book is for cybersecurity leaders across all industries and organizations. It is intended to bridge the gap between the data center and the board room. This book examines the multitude of communication challenges that CISOs are faced with every day and provides practical tools to identify your audience, tailor your message and master the art of communicating. Poor communication is one of the top reasons that CISOs fail in their roles. By taking the step to work on your communication and soft skills (the two go hand-in-hand), you will hopefully never join their ranks. This is not a “communication theory” book. It provides just enough practical skills and techniques for security leaders to get the job done. Learn fundamental

communication skills and how to apply them to day-to-day challenges like communicating with your peers, your team, business leaders and the board of directors. Learn how to produce meaningful metrics and communicate before, during and after an incident. Regardless of your role in Tech, you will find something of value somewhere along the way in this book.

As a security professional, have you found that you and others in your company do not always define “security” the same way? Perhaps security interests and business interests have become misaligned. Brian Allen and Rachelle Loyear offer a new approach: Enterprise Security Risk Management (ESRM). By viewing security through a risk management lens, ESRM can help make you and your security program successful. In their long-awaited book, based on years of practical experience and research, Brian Allen and Rachelle Loyear show you step-by-step how Enterprise Security Risk Management (ESRM) applies fundamental risk principles to manage all security risks. Whether the risks are informational, cyber, physical security, asset management, or business continuity, all are included in the holistic, all-encompassing ESRM approach which will move you from task-based to risk-based security. How is ESRM familiar? As a security professional, you may already practice some of the components of ESRM. Many of the concepts – such as risk identification, risk transfer and acceptance, crisis management, and incident response – will be well known to you. How is ESRM new? While many of the principles are familiar, the authors have identified few organizations that apply them in the

comprehensive, holistic way that ESRM represents – and even fewer that communicate these principles effectively to key decision-makers. How is ESRM practical? ESRM offers you a straightforward, realistic, actionable approach to deal effectively with all the distinct types of security risks facing you as a security practitioner. ESRM is performed in a life cycle of risk management including: Asset assessment and prioritization. Risk assessment and prioritization. Risk treatment (mitigation). Continuous improvement. Throughout Enterprise Security Risk Management: Concepts and Applications, the authors give you the tools and materials that will help you advance you in the security field, no matter if you are a student, a newcomer, or a seasoned professional. Included are realistic case studies, questions to help you assess your own security program, thought-provoking discussion questions, useful figures and tables, and references for your further reading. By redefining how everyone thinks about the role of security in the enterprise, your security organization can focus on working in partnership with business leaders and other key stakeholders to identify and mitigate security risks. As you begin to use ESRM, following the instructions in this book, you will experience greater personal and professional satisfaction as a security professional – and you'll become a recognized and trusted partner in the business-critical effort of protecting your enterprise and all its assets.

Security Risk Management is the definitive guide for building or running an information security risk management program. This book teaches practical

techniques that will be used on a daily basis, while also explaining the fundamentals so students understand the rationale behind these practices. It explains how to perform risk assessments for new IT projects, how to efficiently manage daily risk activities, and how to qualify the current risk level for presentation to executive level management. While other books focus entirely on risk analysis methods, this is the first comprehensive text for managing security risks. This book will help you to break free from the so-called best practices argument by articulating risk exposures in business terms. It includes case studies to provide hands-on experience using risk assessment tools to calculate the costs and benefits of any security investment. It explores each phase of the risk management lifecycle, focusing on policies and assessment processes that should be used to properly assess and mitigate risk. It also presents a roadmap for designing and implementing a security risk management program. This book will be a valuable resource for CISOs, security managers, IT managers, security consultants, IT auditors, security analysts, and students enrolled in information security/assurance college programs. Named a 2011 Best Governance and ISMS Book by InfoSec Reviews Includes case studies to provide hands-on experience using risk assessment tools to calculate the costs and benefits of any security investment Explores each phase of the risk management lifecycle, focusing on policies and assessment processes that should be used to properly assess and mitigate risk Presents a roadmap for designing and implementing a security risk management program

Implement an Effective Security Metrics Project or Program IT Security Metrics provides a comprehensive approach to measuring risks, threats, operational activities, and the effectiveness of data protection in your organization. The book explains how to choose and design effective measurement strategies and addresses the data requirements of those strategies. The Security Process Management Framework is introduced and analytical strategies for security metrics data are discussed. You'll learn how to take a security metrics program and adapt it to a variety of organizational contexts to achieve continuous security improvement over time. Real-world examples of security measurement projects are included in this definitive guide. Define security metrics as a manageable amount of usable data Design effective security metrics Understand quantitative and qualitative data, data sources, and collection and normalization methods Implement a programmable approach to security using the Security Process Management Framework Analyze security metrics data using quantitative and qualitative methods Design a security measurement project for operational analysis of security metrics Measure security operations, compliance, cost and value, and people, organizations, and culture Manage groups of security measurement projects using the Security Improvement Program Apply organizational learning methods to security metrics Other books on information security metrics discuss number theory and statistics in academic terms. Light on mathematics and heavy on utility, PRAGMATIC Security Metrics: Applying Metametrics to Information Security

breaks the mold. This is the ultimate how-to-do-it guide for security metrics. Packed with time-saving tips, the book offers easy-to-follow guidance for those struggling with security metrics. Step by step, it clearly explains how to specify, develop, use, and maintain an information security measurement system (a comprehensive suite of metrics) to help: Security professionals systematically improve information security, demonstrate the value they are adding, and gain management support for the things that need to be done Management address previously unsolvable problems rationally, making critical decisions such as resource allocation and prioritization of security relative to other business activities Stakeholders, both within and outside the organization, be assured that information security is being competently managed The PRAGMATIC approach lets you hone in on your problem areas and identify the few metrics that will generate real business value. The book: Helps you figure out exactly what needs to be measured, how to measure it, and most importantly, why it needs to be measured Scores and ranks more than 150 candidate security metrics to demonstrate the value of the PRAGMATIC method Highlights security metrics that are widely used and recommended, yet turn out to be rather poor in practice Describes innovative and flexible measurement approaches such as capability maturity metrics with continuous scales Explains how to minimize both measurement and security risks using complementary metrics for greater assurance in critical areas such as governance and compliance In addition to its obvious

utility in the information security realm, the PRAGMATIC approach, introduced for the first time in this book, has broader application across diverse fields of management including finance, human resources, engineering, and production—in fact any area that suffers a surplus of data but a deficit of useful information. Visit Security Metametrics. Security Metametrics supports the global community of professionals adopting the innovative techniques laid out in PRAGMATIC Security Metrics. If you, too, are struggling to make much sense of security metrics, or searching for better metrics to manage and improve information security, Security Metametrics is the place. http://securitymetametrics.com/

Spectacular security failures continue to dominate the headlines despite huge increases in security budgets and ever-more draconian regulations. The 20/20 hindsight of audits is no longer an effective solution to security weaknesses, and the necessity for real-time strategic metrics has never been more critical. Information Security Management Metrics: A Definitive Guide to Effective Security Monitoring and Measurement offers a radical new approach for developing and implementing security metrics essential for supporting business activities and managing information risk. This work provides anyone with security and risk management responsibilities insight into these critical security questions: How secure is my organization? How much security is enough? What are the most cost-effective security solutions? How secure is my organization? You can’t manage what you can’t measure This volume shows readers how to develop

metrics that can be used across an organization to assure its information systems are functioning, secure, and supportive of the organization's business objectives. It provides a comprehensive overview of security metrics, discusses the current state of metrics in use today, and looks at promising new developments. Later chapters explore ways to develop effective strategic and management metrics for information security governance, risk management, program implementation and management, and incident management and response. The book ensures that every facet of security required by an organization is linked to business objectives, and provides metrics to measure it. Case studies effectively demonstrate specific ways that metrics can be implemented across an enterprise to maximize business benefit. With three decades of enterprise information security experience, author Krag Brotby presents a workable approach to developing and managing cost-effective enterprise information security.