

Firewalls And Vpns Principles And Practices

Edinburgh, the Scottish capital, hosted SAFECOMP 2003. Since its establishment, SAFECOMP, the series of conferences on Computer Safety, Reliability and Security, has contributed to the progress of the state of the art in dependable applications of computer systems. SAFECOMP provides ample opportunity to exchange insights and experiences in emerging methods across the borders of different disciplines. SAFECOMP year after year registers new multidisciplinary trends on dependability of computer-based systems. The cross-fertilization between different scientific communities and industry supports the achievement of long-term results contributing to the integration of multidisciplinary experiences in order to improve the design and deployment of dependable computer-based systems. Over the years the participation of industry in SAFECOMP has grown steadily. This emphasizes the importance of technology transfer between academia and industry. SAFECOMP 2003 further sustains the healthy interchange of research results and practical experiences. The SAFECOMP 2003 program consisted of 30 papers selected from 96 submissions from all over the world. SAFECOMP 2003 acknowledges the invited keynote talks enhancing the technical and scientific merit of the conference.

The classic and authoritative reference in the field of computer security, now completely updated and revised With the continued presence of large-scale computers; the proliferation of desktop, laptop, and handheld computers; and the vast international networks that interconnect them, the nature and extent of threats to computer security have grown enormously. Now in its fifth edition, Computer Security Handbook continues to provide authoritative guidance to identify and to eliminate these threats where possible, as well as to lessen any losses attributable to them. With seventy-seven chapters contributed by a panel of renowned industry professionals, the new edition has increased coverage in both breadth and depth of all ten domains of the Common Body of Knowledge defined by the International Information Systems Security Certification Consortium (ISCC). Of the seventy-seven chapters in the fifth edition, twenty-five chapters are completely new, including: 1. Hardware Elements of Security 2. Fundamentals of Cryptography and Steganography 3. Mathematical models of information security 4. Insider threats 5. Social engineering and low-tech attacks 6. Spam, phishing, and Trojans: attacks meant to fool 7. Biometric authentication 8. VPNs and secure remote access 9. Securing Peer2Peer, IM, SMS, and collaboration tools 10. U.S. legal and regulatory security issues, such as GLBA and SOX Whether you are in charge of many computers or just one important one, there are immediate steps you can take to safeguard your computer system and its contents. Computer Security Handbook, Fifth Edition equips you to protect the information and networks that are vital to your organization.

Information Security Management, Second Edition arms students with answers to the most critical questions about the fields of cybersecurity. It provides students with references to more in-depth study in areas where they may need to specialize. The Second Edition covers operations—the job of day-to-day cybersecurity tasks—regulations, compliance, laws and policies, research and development, and the creation of software and cyber defenses for security initiatives. Finally, the text covers advanced R&D involved in strategic aspects of security developments for threats that lay on the horizon.

This book constitutes the refereed proceedings of the first International Conference on Principles of Security and Trust, POST 2012, held in Tallinn, Estonia, in March/April 2012, as part of ETAPS 2012, the European Joint Conferences on Theory and Practice of Software. The 20 papers, presented together with the abstract of an invited talk and a joint-ETAPS paper, were selected from a total of 67 submissions. Topics covered by the papers include: foundations of security, authentication, confidentiality, privacy and anonymity, authorization and trust, network security, protocols for security, language-based security, and quantitative security properties.

Computer Safety, Reliability, and Security

Introduction to Network Security

Network Security, Firewalls, and VPNs

Network Security Foundations

Building Secure Systems in Untrusted Networks

Cisco Firewalls

This fully revised and updated second edition provides a unique, in-depth look at the major business challenges and threats that are introduced when an organization's network is connected to the public Internet. It provides a comprehensive explanation of network security basics, including how hackers access online networks and the use of Firewalls and VPNs to provide security countermeasures. Using examples and exercises, this book incorporates hands-on activities to prepare the reader to disarm threats and prepare for emerging technologies and future attacks. Topics covered include: the basics of network security--exploring the details of firewall security and how VPNs operate; how to plan proper network security to combat hackers and outside threats; firewall configuration and deployment and managing firewall security; and how to secure local and internet communications with a VP. --

Dramatically improve your cybersecurity using AI and machine learning In Intelligent Security Systems, distinguished professor and computer scientist Dr. Leon Reznik delivers an expert synthesis of artificial intelligence, machine learning and data science techniques, applied to computer security to assist readers in hardening their computer systems against threats. Emphasizing practical and actionable strategies that can be immediately implemented by industry professionals and computer device's owners, the author explains how to install and harden firewalls, intrusion detection systems, attack recognition tools, and malware protection systems. He also walks the reader through how to recognize and counter common hacking activities. The textbook bridges the gap between cybersecurity education and new data science programs, discussing how cutting-edge artificial intelligence and machine learning techniques can work for and against cybersecurity efforts. Intelligent Security Systems includes supplementary resources, like classroom presentation slides, sample review, test and exam questions, practice exercises to make the material contained within even more practical and useful. The book also offers: A thorough introduction to computer security, artificial intelligence, and machine learning, including basic definitions and concepts like threats, vulnerabilities, risks, attacks, protection, and tools An exploration of firewall design and implementation, including firewall types and models, typical designs and configurations, and their limitations and problems Discussions of intrusion detection systems (IDS), including architecture topologies, components, and operational ranges, classification approaches, and machine learning techniques in IDS design A treatment of malware and vulnerabilities detection and protection, including malware classes, history, and development trends Perfect for undergraduate and graduate students in computer security, computer science and engineering, Intelligent Security Systems will also earn a place in the libraries of students and educators in information technology and data science, as well as professionals working in those fields.

This updated report provides an overview of firewall technology, and helps organizations plan for and implement effective firewalls. It explains the technical features of firewalls, the types of firewalls that are available for implementation by organizations, and their security capabilities. Organizations are advised on the placement of firewalls within the network architecture, and on the selection, implementation, testing, and management of firewalls. Other issues covered in detail are the development of firewall policies, and recommendations on the types of network traffic that should be prohibited. The appendices contain helpful supporting material, including a glossary and lists of acronyms and abbreviations; and listings of in-print and online resources. Illus. ROADMAP TO INFORMATION SECURITY: FOR IT AND INFOSEC MANAGERS provides a solid overview of information security and its relationship to the information needs of an organization. Content is tailored to the unique needs of information systems professionals who find themselves brought in to the intricacies of information security responsibilities. The book is written for a wide variety of audiences looking to step up to emerging security challenges, ranging from students to experienced professionals. This book is designed to guide the information technology manager in dealing with the challenges associated with the security aspects of their role, providing concise guidance on assessing and improving an organization's security. The content helps IT managers to handle an assignment to an information security role in ways that conform to expectations and requirements, while supporting the goals of the manager in building and maintaining a solid information security program. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

How Artificial Intelligence, Machine Learning and Data Science Work For and Against Computer Security

Information Security Management

Guidelines on Firewalls and Firewall Policy

Fundamentals of Information Systems Security

Revision 1

Theory and Practice

Ideal for connecting branch offices and remote workers, Virtual Private Networks (VPNs) provide a cost-effective, secure method for connecting to a network. This book is a step-by-step guide to deploying one of the fastest growing methods for remote access, global connections, and extranet connectivity. From understanding VPN technology to security features of VPN to actual implementations, this book covers it all.

For introductory and intermediate courses in computer forensics, digital investigations, or computer crime investigation By applying information systems, computer security, and criminal justice principles and practices to crime investigations and other legal actions, this text teaches students how to use forensically-sound methodologies and software to acquire admissible electronic evidence (e-evidence) with coverage of computer and email forensics, cell phone and IM forensics, and PDA and Blackberry forensics.

Discover the latest trends, developments and technology in information security today with Whitman/Mattord's market-leading PRINCIPLES OF INFORMATION SECURITY, 7th Edition. Designed specifically to meet the needs of those studying information systems, this edition's balanced focus addresses all aspects of information security, rather than simply offering a technical control perspective. This overview explores important terms and examines what is needed to manage an effective information security program. A new module details incident response and detection strategies. In addition, current, relevant updates highlight the latest practices in security operations as well as legislative issues, information management toolsets and digital forensics. Coverage of the most recent policies and guidelines that correspond to federal and international standards further prepare you for success both in information systems and as a business decision-maker. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This book solves the need for a resource that illustrates the principles underlying security technology, as well as provides complete hands-on exercises that will serve as valuable practice for users. Based on open-source software, this book is oriented toward the first-time networking reader. Progressive, practical exercises build confidence; SOHO (small-office-home-office) users will also be impressed with the information provided, as for these users the affordability of open-source solutions can be critical. Comprehensive coverage includes: TCP/IP and related protocols, open-source firewalls, services support and applications that firewalls protect, IPsec and TLS-based VPNs, and firewall log and log servers. An excellent reference and resource for network administrators, security administrators, chief security officers, and anyone with the following certifications: SANS, GSEC, MCSE, MCSA, CNE, A+, and Security+.

CompTIA Security+ Rapid Review (Exam SY0-301)

Principles of Security and Trust

Building DMZs For Enterprise Networks

An Interdisciplinary Approach to Modern Network Security

Network Security, Firewalls and VPNs

Laboratory Manual Version 1.5 to Accompany Network Security, Firewalls, and VPNs

HANDS-ON INFORMATION SECURITY LAB MANUAL, Fourth Edition, helps you hone essential information security skills by applying your knowledge to detailed, realistic exercises using Microsoft Windows 2000, Windows XP, Windows 7, and Linux. This wide-ranging, non-certification-based lab manual includes coverage of scanning, OS vulnerability analysis and resolution, firewalls, security maintenance, forensics, and more. The Fourth Edition includes new introductory labs focused on virtualization techniques and images, giving you valuable experience with some of the most important trends and practices in information security and networking today. All software necessary to complete the labs are available online as a free download. An ideal resource for introductory, technical, and managerial courses or self-study, this versatile manual is a perfect supplement to the PRINCIPLES OF INFORMATION SECURITY, SECURITY FUNDAMENTALS, and MANAGEMENT OF INFORMATION SECURITY books. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This book provides a concise yet comprehensive overview of computer and Internet security, suitable for a one-term introductory course for junior/senior undergrad or first-year graduate students. It is also suitable for self-study by anyone seeking a solid footing in security – including software developers and computing professionals, technical managers and government staff. An overriding focus is on brevity, without sacrificing breadth of core topics or technical detail within them. The aim is to enable a broad understanding in roughly 350 pages. Further prioritization is supported by designating as optional selected content within this. Fundamental academic concepts are reinforced by specifics and examples, and related to applied problems and real-world incidents. The first chapter provides a gentle overview and 20 design principles for security. The ten chapters that follow provide a framework for understanding computer and Internet security. They regularly refer back to the principles, with supporting examples. These principles are the conceptual counterparts of security-related error patterns that have been recurring in software and system designs for over 50 years. The book is "elementary" in that it assumes no background in security, but unlike "soft" high-level texts it does not avoid low-level details, instead it selectively dives into fine points for exemplary topics to concretely illustrate concepts and principles. The book is rigorous in the sense of being technically sound, but avoids both mathematical proofs and lengthy source-code examples that typically make books inaccessible to general audiences. Knowledge of elementary operating system and networking concepts is helpful, but review sections summarize the essential background. For graduate students, inline exercises and supplemental references provided in per-chapter endnotes provide a bridge to further topics and a springboard to the research literature; for those in industry and government, pointers are provided to helpful surveys and relevant standards, e.g., documents from the Internet Engineering Task Force (IETF), and the U.S. National Institute of Standards and Technology.

Introductory textbook in the important area of network security for undergraduate and graduate students Comprehensively covers fundamental concepts with newer topics such as electronic cash, bit-coin, P2P, SHA-3, E-voting, and Zigbee security Fully updated to reflect new developments in network security Introduces a chapter on Cloud security, a very popular and essential topic Uses everyday examples that most computer users experience to illustrate important principles and mechanisms Features a companion website with PowerPoint slides for lectures and solution manuals to selected exercise problems, available at <http://www.cs.uml.edu/~wang/NetSec>

PART OF THE JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES Revised and updated with the latest information from this fast-paced field, Fundamentals of Information System Security, Second Edition provides a comprehensive overview of the essential concepts readers must know as they pursue careers in information systems security. The text opens with a discussion of the new risks, threats, and vulnerabilities associated with the transformation to a digital world, including a look at how business, government, and individuals operate today. Part 2 is adapted from the Official (ISC)2 SSCP Certified Body of Knowledge and presents a high-level overview of each of the seven domains within the System Security Certified Practitioner certification. The book closes with a resource for readers who desire additional material on information security standards, education, professional certifications, and compliance laws. With its practical, conversational writing style and step-by-step examples, this text is a must-have resource for those entering the world of information systems security. New to the Second Edition: - New material on cloud computing, risk analysis, IP mobility, OMNIBus, and Agile Software Development. - Includes the most recent updates in Information Systems Security laws, certificates, standards, amendments, and the proposed Federal Information Security Amendments Act of 2013 and HITECH Act. - Provides new cases and examples pulled from real-world scenarios. - Updated data, tables, and sidebars provide the most current information in the field.

Computer Security and the Internet

Zero Trust Networks

Building Internet Firewalls

Enhancing Security with nftables and Beyond

Computer Security Handbook, Set

Intrusion Detection and VPNs

PART OF THE NEW JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES!*Network Security, Firewalls, and VPNs provides a unique, in-depth look at the major business challenges and threats that are introduced when an organization's network is connected to the public Internet. Written by an industry expert, this book provides a comprehensive explanation of network security basics, including how hackers access online networks and the use of Firewalls and VPNs to provide security countermeasures. Using examples and exercises, this book incorporates hands-on activities to prepare the reader to disarm threats and prepare for emerging technologies and future attacks.*

Expert solutions for securing network infrastructures and VPNs Build security into the network by defining zones, implementing secure routing protocol designs, and building safe LAN switching environments Understand the inner workings of the Cisco PIX Firewall and analyze in-depth Cisco PIX Firewall and Cisco IOS Firewall features and concepts Understand what VPNs are and how they are implemented with protocols such as GRE, L2TP, and IPsec Gain a packet-level understanding of the IPsec suite of protocols, its associated encryption and hashing functions, and authentication techniques Learn how network attacks can be categorized and how the Cisco IDS is designed and can be set up to protect against them Control network access by learning how AAA fits into the Cisco security model and by implementing RADIUS and TACACS+ protocols Provision service provider security using ACLs, NBAR, and CAR to identify and control attacks Identify and resolve common implementation failures by evaluating real-world troubleshooting scenarios As organizations increase their dependence on networks for core business processes and increase access to remote sites and mobile workers via virtual private networks (VPNs), network security becomes more and more critical. In today's networked era, information is an organization's most valuable resource. Lack of customer, partner, and employee access to e-commerce and data servers can impact both revenue and productivity. Even so, most networks do not have the proper degree of security. Network Security Principles and Practices provides an in-depth understanding of the policies, products, and expertise that brings organization to this extremely complex topic and boosts your confidence in the performance and integrity of your network systems and services. Written by the CCIE engineer who wrote the CCIE Security lab exam and who helped develop the CCIE Security written exam, Network Security Principles and Practices is the first book to help prepare candidates for the CCIE Security exams. Network Security Principles and Practices is a comprehensive guide to network security threats and the policies and tools developed specifically to combat those threats. Taking a practical, applied approach to building security into networks, the book shows you how to build secure network architectures from the ground up. Security aspects of routing protocols, Layer 2 threats, and switch security features are all analyzed. A comprehensive treatment of VPNs and IPsec is presented in extensive packet-by-packet detail. The book takes a behind-the-scenes look at how the Cisco PIX(r) Firewall actually works, presenting many difficult-to-understand and new Cisco PIX Firewall and Cisco IOS(r) Firewall concepts. The book launches into a discussion of intrusion detection systems (IDS) by analyzing and breaking down modern-day network attacks, describing how an IDS deals with those threats in general, and elaborating on the Cisco implementation of IDS. The book also discusses AAA, RADIUS, and TACACS+ and their usage with some of the newer security implementations such as VPNs and proxy authentication. A complete section devoted to service provider techniques for enhancing customer security and providing support in the event of an attack is also included. Finally, the book concludes with a section dedicated to discussing tried-and-tested troubleshooting tools and techniques that are not only invaluable to candidates working toward their CCIE Security lab exam but also to the security network administrator running the operations of a network on a daily basis. Specifically oriented to the needs of information systems students, PRINCIPLES OF INFORMATION SECURITY, 5e delivers the latest technology and developments from the field. Taking a managerial approach, this bestseller teaches all the aspects of information security—not just the technical control perspective. It provides a broad review of the entire field of information security, background on many related elements, and enough detail to facilitate understanding of the topic. It covers the terminology of the field, the history of the discipline, and an overview of how to manage an information security program. Current and relevant, the fifth edition includes the latest practices, fresh examples, updated material on technical security controls, emerging legislative issues, new coverage of digital forensics, and hands-on application of ethical issues in IS security. It is the ultimate resource for future business decision-makers. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

A True Textbook for an Introductory Course, System Administration Course, or a Combination Course Linux with Operating System Concepts merges conceptual operating system (OS) and Unix/Linux topics into one cohesive textbook for undergraduate students. The book can be used for a one- or two-semester course on Linux or Unix. It is complete with review sections, problems, definitions, concepts, and relevant introductory material, such as binary and Boolean logic, OS kernels, and the role of the CPU and memory hierarchy. Details for Introductory and Advanced Users The book covers Linux from both the user and system administrator positions. From a user perspective, it emphasizes command line interaction. From a system administrator perspective, the text reinforces shell scripting with examples of administration scripts that support the automation of administrator tasks. Thorough Coverage of Concepts and Linux Commands The author incorporates OS concepts not found in most Linux/Unix textbooks, including kernels, file systems, storage devices, virtual memory, and process management. He also introduces computer science topics, such as computer networks and TCP/IP, binary numbers and Boolean logic, encryption, and the GNUs C compiler. In addition, the text discusses disaster recovery planning, booting, and Internet servers.

22nd International Conference, SAFECOMP 2003, Edinburgh, UK, September 23–26, 2003, Proceedings

Internet and Web Security

Computer Forensics

Linux with Operating System Concepts

Tools and Jewels from Malware to Bitcoin

VPNs

Firewalls are among the best-known network security tools in use today, and their critical role in information security continues to grow. However, firewalls are most effective when backed by thoughtful security planning, well-designed security policies, and integrated support from anti-virus software, intrusion detection systems, and related tools. GUIDE TO FIREWALLS AND VPNS, THIRD EDITION explores firewalls in the context of these critical elements, providing an in-depth guide that focuses on both managerial and technical aspects of security. Coverage includes packet filtering, authentication, proxy servers, encryption, bastion hosts, virtual private networks (VPNs), log file maintenance, and intrusion detection systems. The text also features an abundant selection of realistic projects and cases incorporating cutting-edge technology and current trends, giving students the opportunity to hone and apply the knowledge and skills they will need as working professionals. GUIDE TO FIREWALLS AND VPNS includes new and updated cases and projects, enhanced coverage of network security and VPNs, and information on relevant National Institute of Standards and Technology guidelines used by businesses and information technology professionals. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The Definitive Guide to Building Firewalls with Linux As the security challenges facing Linux system and network administrators have grown, the security tools and techniques available to them have improved dramatically. In Linux® Firewalls, Fourth Edition, long-time Linux security expert Steve Suehring has revamped his definitive Linux firewall guide to cover the important advances in Linux security. An indispensable working resource for every Linux administrator concerned with security, this guide presents comprehensive coverage of both iptables and nftables. Building on the solid networking and firewalling foundation in previous editions, it also adds coverage of modern tools and techniques for detecting exploits and intrusions, and much more. Distribution neutral throughout, this edition is fully updated for today's Linux kernels, and includes current code examples and support scripts for Red Hat/Fedora, Ubuntu, and Debian implementations. If you're a Linux professional, it will help you establish an understanding of security for any Linux system, and for networks of all sizes, from home to enterprise. Inside, you'll find just what you need to install, configure, and update a Linux firewall running either iptables or nftables Migrate to nftables, or take advantage of the latest iptables enhancements Manage complex multiple firewall configurations Create, debug, and optimize firewall rules Use Samhain and other tools to protect filesystem integrity, monitor networks, and detect intrusions Harden systems against port scanning and other attacks Uncover exploits such as rootkits and backdoors with chkrootkit

Assess your readiness for CompTIA Security+ Exam SY0-301—and quickly identify where you need to focus and practice. This practical, streamlined guide walks you through each exam objective, providing "need-to-know" checklists, review questions, tips, and links to further study—all designed to help bolster your preparation. Reinforce your exam prep with a Rapid Review of these objectives: Network security Compliance and operational security Threats and vulnerabilities Application, data and host security Access control and identity management Cryptography This book is an ideal complement to the in-depth training of the Microsoft Press Training Kit and other exam-prep resources for CompTIA Security+ Exam SY0-301.

The perimeter defenses guarding your network perhaps are not as secure as you think. Hosts behind the firewall have no defenses of their own, so when a host in the "trusted" zone is breached, access to your data center is not far behind. That's an all-too-familiar scenario today. With this practical book, you'll learn the principles behind zero trust architecture, along with details necessary to implement it. The Zero Trust Model treats all hosts as if they're internet-facing, and considers the entire network to be compromised and hostile. By taking this approach, you'll focus on building strong authentication, authorization, and encryption throughout, while providing compartmentalized access and better operational agility. Understand how perimeter-based defenses have evolved to become the broken model we use today Explore two case studies of zero trust in production networks on the client side (Google) and on the server side (PagerDuty) Get example configuration for open source tools that you can use to build a zero trust network Learn how to migrate from a perimeter-based network to a zero trust network in production

Principles of Information Security**MasteringA Network Security****Advances in Information and Communication****Firewalls and VPNs****Network Defense and Countermeasures****Firewall Fundamentals**

What an amazing world we live in! Almost anything you can imagine can be researched, compared, admired, studied, and in many cases, bought, with the click of a mouse. The Internet has changed our lives, putting a world of opportunity before us. Unfortunately, it has also put a world of opportunity into the hands of those whose motives are less than honorable. A firewall, a piece of software or hardware that erects a barrier between your computer and those whom it might like to invade it, is one solution. If you've been using the Internet for any length of time, you've probably received some unsavory and unsolicited e-mail. If you run a business, you may be worried about the security of your data and your customers' privacy. At home, you want to protect your personal information from identity thieves and other shady characters. Firewalls For Dummies® will give you the lowdown on firewalls, then guide you through choosing, installing, and configuring one for your personal or business network. Firewalls For Dummies® helps you understand what firewalls are, how they operate on different types of networks, what they can and can't do, and how to pick a good one (it's easier than identifying that perfect melon in the supermarket.) You'll find out about developing security policies, establishing rules for simple protocols, detecting and responding to system intrusions, setting up firewalls for SOHO or personal use, creating demilitarized zones using Windows or Linux as a firewall, configuring ZoneAlarm, BlackICE, and Norton Personal Firewalls, installing and using ISA server and FireWall-1. With the handy tips and hints this book provides, you'll find that firewalls are nothing to fear – that is, unless you're a cyber-crook! You'll soon be able to keep your data safer, protect your family's privacy, and probably sleep better, too.

In the five years since the first edition of this classic book was published, Internet use has exploded. The commercial world has rushed headlong into doing business on the Web, often without integrating sound security technologies and policies into their products and methods. The security risks—and the need to protect both business and personal data—have never been greater. We've updated Building Internet Firewalls to address these newer risks. What kinds of security threats does the Internet pose? Some, like password attacks and the exploiting of known security holes, have been around since the early days of networking. And others, like the distributed denial of service attacks that crippled Yahoo, E-Bay, and other major e-commerce sites in early 2000, are in current headlines. Firewalls, critical components of today's computer networks, effectively protect a system from most Internet security threats. They keep damage on one part of the network—such as eavesdropping, a worm program, or file damage—from spreading to the rest of the network. Without firewalls, network security problems can rage out of control, dragging more and more systems down. Like the bestselling and highly respected first edition, Building Internet Firewalls, 2nd Edition, is a practical and detailed step-by-step guide to designing and installing firewalls and configuring Internet services to work with a firewall. Much expanded to include Linux and Windows coverage, the second edition describes: Firewall technologies: packet filtering, proxying, network address translation, virtual private networks Architectures such as screening routers, dual-homed hosts, screened hosts, screened subnets, perimeter networks, internal firewalls Issues involved in a variety of new Internet services and protocols through a firewall Email and News Web services and scripting languages (e.g., HTTP, Java, JavaScript, ActiveX, RealAudio, RealVideo) File transfer and sharing services such as NFS, Samba Remote access services such as Telnet, the BSD "r" commands, SSH, BackOrifice 2000 Real-time conferencing services such as ICQ and talk Naming and directory services (e.g., DNS, NetBT, the Windows Browser) Authentication and auditing services (e.g., PAM, Kerberos, RADIUS); Administrative services (e.g., syslog, SNMP, SMS, RIP and other routing protocols, and ping and other network diagnostics) Intermediary protocols (e.g., RPC, SMB, CORBA, IIOP) Database protocols (e.g., ODBC, JDBC, and protocols for Oracle, Sybase, and Microsoft SQL Server) The book's complete list of resources includes the location of many publicly available firewall construction tools.

Information Security: Principles and Practices, Second Edition Everything You Need to Know About Modern Computer Security, in One Book Clearly explains all facets of information security in all 10 domains of the latest Information Security Common Body of Knowledge [(ISC)² CBK]. Thoroughly updated for today's challenges, technologies, procedures, and best practices. The perfect resource for anyone pursuing an IT security career. Fully updated for the newest technologies and best practices, Information Security: Principles and Practices, Second Edition thoroughly covers all 10 domains of today's Information Security Common Body of Knowledge. Two highly experienced security practitioners have brought together all the foundational knowledge you need to succeed in today's IT and business environments. They offer easy-to-understand, practical coverage of topics ranging from security management and physical security to cryptography and application development security. This edition fully addresses new trends that are transforming security, from cloud services to mobile applications. "Bring Your Own Device" (BYOD) strategies to today's increasingly rigorous compliance requirements. Throughout, you'll find updated case studies, review questions, and exercises—all designed to reveal today's real-world IT security challenges and help you overcome them. Learn how to -- Recognize the evolving role of IT security -- Identify the best new opportunities in the field -- Discover today's core information security principles of success -- Understand certification programs and the CBK -- Master today's best practices for governance and risk management -- Architect and design systems to maximize security -- Plan for business continuity -- Understand the legal, investigatory, and ethical requirements associated with IT security -- Improve physical and operational security -- Implement effective access control systems -- Effectively utilize cryptography -- Improve network and Internet security -- Build more secure software -- Define more effective security policies and standards -- Preview the future of information security

Cisco Firewalls Concepts, design and deployment for Cisco Stateful Firewall solutions ¿ " In this book, Alexandre proposes a totally different approach to the important subject of firewalls: Instead of just presenting configuration models, he uses a set of carefully crafted examples to illustrate the theory in action. ¿a must read!" —Luc Billot, Security Consulting Engineer at Cisco ¿ Cisco Firewalls thoroughly explains each of the leading Cisco firewall products, features, and solutions, and shows how they can add value to any network security design or operation. The author tightly links theory with practice, demonstrating how to integrate Cisco firewalls into highly secure, self-defending networks. Cisco Firewalls shows you how to deploy Cisco firewalls as an essential component of every network infrastructure. The book takes the unique approach of illustrating complex configuration concepts through step-by-step examples that demonstrate the theory in action. This is the first book with detailed coverage of firewalling Unified Communications systems, network virtualization architectures, and environments that include virtual machines. The author also presents indispensable information about integrating firewalls with other security elements such as IPS, VPNs, and load balancers; as well as a complete introduction to firewalling IPv6 networks. Cisco Firewalls will be an indispensable resource for engineers and architects designing and implementing firewalls: security administrators, operators, and support professionals; and anyone preparing for the CCNA Security, CCNP Security, or CCIE Security certification exams. ¿ Alexandre Matos da Silva Pires de Moraes, CCIE No. 6063, has worked as a Systems Engineer for Cisco Brazil since 1998 in projects that involve not only Security and VPN technologies but also Routing Protocol and Campus Design, IP Multicast Routing, and MPLS Networks Design. He coordinated a team of Security engineers in Brazil and holds the CISSP, CCSP, and three CCIE certifications (Routing/Switching, Security, and Service Provider). A frequent speaker at Cisco Live, he holds a degree in electronic engineering from the Instituto Tecnológico de Aeronáutica (ITA – Brazil). ¿ ¿ Create advanced security designs utilizing the entire Cisco firewall product family ¿ Choose the right firewalls based on your performance requirements ¿ Learn firewall configuration fundamentals and master the tools that provide insight about firewall operations ¿ Properly insert firewalls in your network's topology using Layer 3 or Layer 2 connectivity ¿ Use Cisco firewalls as part of a robust, secure virtualization architecture ¿ Deploy Cisco ASA firewalls with or without NAT ¿ Take full advantage of the classic IOS firewall feature set (CBAC) ¿ Implement flexible security policies with the Zone Policy Firewall (ZPF) ¿ Strengthen stateful inspection with antispoofting, TCP normalization, connection limiting, and IP fragmentation handling ¿ Use application-layer inspection capabilities built into Cisco firewalls ¿ Inspect IP voice protocols, including SCCP, H.323, SIP, and MGCP ¿ Utilize identity to provide user-based stateful functionality ¿ Understand how multicast traffic is handled through firewalls ¿ Use firewalls to protect your IPv6 deployments ¿ This security book is part of the Cisco Press Networking Technology Series. Security titles from Cisco Press help networking professionals secure critical data and resources, prevent and mitigate network attacks, and build end-to-end, self-defending networks.

Technology Fundamentals for IT Success

Network Security Principles and Practices

Proceedings of the 2019 Future of Information and Communication Conference (FICC), Volume 2

Hands-On Information Security Lab Manual

Linux Firewalls

A Beginner's Guide

PART OF THE NEW JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES! Network Security, Firewalls, and VPNs provides a unique, in-depth look at the major business challenges and threats that are introduced when an organization's network is connected to the public Internet. Written by an industry expert, this book provides a comprehensive explanation of network security basics, including how hackers access online networks and VPNs to provide security countermeasures. Using examples and exercises, this book incorporates hands-on activities to prepare the reader to disarm threats and prepare for emerging technologies and future attacks.

GUIDE TO NETWORK SECURITY is a wide-ranging new text that provides a detailed review of the network security field, including essential terminology, the history of the discipline, and practical techniques to manage implementation of network solutions. It begins with an overview of information, network, and web security, emphasizing the role of data communications and encryption. The authors then explore network perimeter defense technologies and methods, including access control, VPNs, and intrusion detection systems, as well as applied cryptography in public key infrastructure, wireless security, and web commerce. The final section covers additional topics relevant for information security practitioners, such as assessment, security, professional careers in the field, and contingency planning. Perfect for both aspiring and active IT professionals, GUIDE TO NETWORK SECURITY is an ideal resource for students who want to help organizations protect critical information and secure their systems and networks, both by recognizing current threats and vulnerabilities, and by designing and developing the secure systems of the future. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Everything you need to know about modern network attacks and defense, in one book Clearly explains core network security concepts, challenges, technologies, and skills Thoroughly updated for the latest attacks and countermeasures This beginner's guide for anyone interested in a network security career ¿ Security is the IT industry's hottest topic—and that's where the hottest opportunities are, too. Organizations desperately need professionals who can help them safeguard sophisticated attacks ever created—attacks from well-funded global criminal syndicates, and even governments. ¿ Today, security begins with defending the organizational network. Network Defense and Countermeasures, Second Edition is complete, easy-to-understand introduction to modern network attacks and their effective defense. From malware and DDoS attacks to firewalls and encryption, Chuck Easttom blends theoretical foundations with up-to-the-minute best practices. Starting with the absolute basics, he discusses crucial topics many security books overlook, including the emergence of network-based espionage and terrorism. ¿ If you have a basic understanding of networks, that's all the background you need to succeed with this book: no math or advanced computer science is required. You'll find projects, questions, exercises, case studies, links to expert resources, and a complete glossary—all designed to deepen your understanding and prepare you for real-world networks. ¿ Learn how to Understand essential network security concepts, challenges, and careers Learn how modern attacks work Discover how firewalls, intrusion detection systems (IDS), and virtual private networks (VPNs) protect modern networks Select the right security technologies for any network environment Use encryption to protect information Harden Windows and Linux systems and keep them patched Securely configure web browsers to resist attacks Detect and prevent malware Define practical, enforceable security policies Use the "6 Ps" to assess technical and human aspects of system security Detect and fix system vulnerability Apply proven security standards and models, including Orange Book, Common Criteria, and Bell-LaPadula Ensure physical security and prepare for disaster recovery Know your enemy: learn basic hacking, and see how to counter it Understand standard forensic techniques and prepare for investigations of digital crime ¿ PART OF THE NEW JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES Fully revised and updated with the latest data from the field, Network Security, Firewalls, and VPNs, Second Edition provides a unique, in-depth look at the major business challenges and threats that are introduced when an organization's network is connected to the public Internet. Written by an industry expert, this book provides a comprehensive explanation of network security, including how hackers access online networks and the use of firewalls and VPNs to provide security countermeasures. Using examples and exercises, this book incorporates hands-on activities to prepare the reader to disarm threats and prepare for emerging technologies and future attacks. Key Features: -Introduces the basics of network security exploring the details of firewall security and how VPNs operate -Illustrates how to plan proper network security to combat hackers and other threats -Discusses firewall configuration and deployment and managing firewall security -Identifies how to secure local and internet communications with a VPN Instructor Materials for Network Security, Firewalls, VPNs include: PowerPoint Lectures, Lab Questions Case Scenarios/Handouts About the Series This book is part of the Information Systems Security and Assurance Series from Jones and Bartlett Learning. Designed for courses and curriculums in IT Security, Cybersecurity, Information Security, and Information Systems Security, this series features a comprehensive, consistent treatment of the most current thinking and trends in this critical subject area. These titles deliver fundamental information-security principles packed with practical applications and examples. Authored by Certified Information Systems Security Professionals (CISSPs), they deliver comprehensive information on all aspects of information security. Reviewed word for word by leading technical experts in the field, these books are not just current, but forward-thinking putting you in the position to solve the cybersecurity challenges not just of today, but of tomorrow, as well."

First International Conference, POST 2012, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2012, Tallinn, Estonia, March 24 - April 1, 2012, Proceedings

Information Security

Guide to Firewalls and VPNs

Firewalls For Dummies

Roadmap to Information Security: For IT and Infosec Managers

Guide to Firewalls and Network Security

An Interdisciplinary Approach to Modern Network Security presents the latest methodologies and trends in detecting and preventing network threats. Investigating the potential of current and emerging security technologies, this publication is an all-inclusive reference source for academicians, researchers, students, professionals, practitioners, network analysts and technology specialists interested in the simulation and application of computer network protection. It presents theoretical frameworks and the latest research findings in network security technologies, while analyzing malicious threats which can compromise network integrity. It discusses the security and optimization of computer networks for use in a variety of disciplines and fields. Touching on such matters as mobile and VPN security, IP spoofing and intrusion detection, this edited collection emboldens the efforts of researchers, academics and network administrators working in both the public and private sectors. This edited compilation includes chapters covering topics such as attacks and countermeasures, mobile wireless networking, intrusion detection systems, next-generation firewalls, web security and much more. Information and communication systems are an essential component of our society, forcing us to become dependent on these infrastructures. At the same time, these systems are undergoing a convergence and interconnection process that has its benefits, but also raises specific threats to user interests. Citizens and organizations must feel safe when using cyberspace facilities in order to benefit from its advantages. This book is interdisciplinary in the sense that it covers a wide range of topics like network security threats, attacks, tools and procedures to mitigate the effects of malware and common network attacks, network security architecture and deep learning methods of intrusion detection.

The essential guide to understanding and using firewalls to protect personal computers and your network An easy-to-read introduction to the most commonly deployed network security device Understand the threats firewalls are designed to protect against Learn basic firewall architectures, practical deployment scenarios, and common management and troubleshooting tasks Includes configuration, deployment, and management checklists Increasing reliance on the Internet in both work and home environments has radically increased the vulnerability of computing systems to attack from a wide variety of threats. Firewall technology continues to be the most prevalent form of protection against existing and new threats to computers and networks. A full understanding of what firewalls can do, how they can be deployed to maximum effect, and the differences among firewall types can make the difference between continued network integrity and complete network or computer failure. Firewall Fundamentals introduces readers to firewall concepts and explores various commercial and open source firewall implementations—including Cisco, Linksys, and Linux—allowing network administrators and small office/home office computer users to effectively choose and configure their devices. Firewall Fundamentals is written in clear and easy-to-understand language and helps novice users understand what firewalls are and how and where they are used. It introduces various types of firewalls, first conceptually and then by explaining how different firewall implementations actually work. It also provides numerous implementation examples, demonstrating the use of firewalls in both personal and business-related scenarios, and explains how a firewall should be installed and configured. Additionally, generic firewall troubleshooting methodologies and common management tasks are clearly defined and explained.

This book presents a remarkable collection of chapters that cover a wide range of topics in the areas of information and communication technologies and their real-world applications. It gathers the Proceedings of the Future of Information and Communication Conference 2019 (FICC 2019), held in San Francisco, USA from March 14 to 15, 2019. The conference attracted a total of 462 submissions from pioneering researchers, scientists, industrial engineers, and students from all around the world. Following a double-blind peer review process, 160 submissions (including 15 poster papers) were ultimately selected for inclusion in these proceedings. The

papers highlight relevant trends in, and the latest research on: Communication, Data Science, Ambient Intelligence, Networking, Computing, Security, and the Internet of Things. Further, they address all aspects of Information Science and communication technologies, from classical to intelligent, and both the theory and applications of the latest technologies and methodologies. Gathering chapters that discuss state-of-the-art intelligent methods and techniques for solving real-world problems, along with future research directions, the book represents both an interesting read and a valuable asset. The world of IT is always evolving, but in every area there are stable, core concepts that anyone just setting out needed to know last year, needs to know this year, and will still need to know next year. The purpose of the Foundations series is to identify these concepts and present them in a way that gives you the strongest possible starting point, no matter what your endeavor. Network Security Foundations provides essential knowledge about the principles and techniques used to protect computers and networks from hackers, viruses, and other threats. What you learn here will benefit you in the short term, as you acquire and practice your skills, and in the long term, as you use them. Topics covered include: Why and how hackers do what they do How encryption and authentication work How firewalls work Understanding Virtual Private Networks (VPNs) Risks posed by remote access Setting up protection against viruses, worms, and spyware Securing Windows computers Securing UNIX and Linux computers Securing Web and email servers Detecting attempts by hackers Intelligent Security Systems Guide to Network Security Principles and Practices

This book covers what an administrator needs to plan out and integrate a DMZ into a network for small, medium and Enterprise networks. In most enterprises the perception is that a firewall provides a hardened perimeter. However, the security of internal networks and hosts is usually very soft. In such an environment, a non-DMZ system that is offering services to the Internet creates the opportunity to leapfrog to other hosts in the soft interior of your network. In this scenario your internal network is fair game for any attacker who manages to penetrate your so-called hard perimeter. - There are currently no books written specifically on DMZs - This book will be unique in that it will be the only book that teaches readers how to build a DMZ using all of these products: ISA Server, Check Point NG, Cisco Routers, Sun Servers, and Nokia Security Appliances. - Dr. Thomas W. Shinder is the author of the best-selling book on Microsoft's ISA, Configuring ISA Server 2000. Customers of the first book will certainly buy this book.

Firewalls are among the best-known security tools in use today, and their critical role in information security continues to grow. However, firewalls are most effective when they are backed by effective security planning, a well-designed security policy, and when they work in concert with anti-virus software, intrusion detection systems, and other tools. This book aims to explore firewalls in the context of these other elements, providing readers with a solid, in-depth introduction to firewalls that focuses on both managerial and technical aspects of security. Coverage includes packet filtering, authentication, proxy servers, encryption, bastion hosts, virtual private networks (VPNs), log file maintenance, and intrusion detection systems. The second edition offers updated content and brand new material, from enhanced coverage of non-firewall subjects like information and network security to an all-new section dedicated to intrusion detection in the context of incident response.