

Cisco Video Surveillance Management Console

Pro Python System Administration, Second Edition explains and shows how to apply Python scripting in practice. It will show you how to approach and resolve real-world issues that most system administrators will come across in their careers. This book has been updated using Python 2.7 and Python 3 where appropriate. It also uses various new and relevant open source projects and tools that should now be used in practice. In this updated edition, you will find several projects in the categories of network administration, web server administration, and monitoring and database management. In each project, the author will define the problem, design the solution, and go through the more interesting implementation steps. Each project is accompanied by the source code of a fully working prototype, which you'll be able to use immediately or adapt to your requirements and environment. This book is primarily aimed at experienced system administrators whose day-to-day tasks involve looking after and managing small-to-medium-sized server estates. It will also be beneficial for system administrators who want to learn more about automation and want to apply their Python knowledge to solve various system administration problems. Python developers will also benefit from reading this book, especially if they are involved in developing automation and management tools.

The censorship and surveillance of individuals, societies, and countries have been a long-debated ethical and moral issue. In consequence, it is vital to explore this controversial topic from all angles. *Censorship, Surveillance, and Privacy: Concepts, Methodologies, Tools, and Applications* is a vital reference source on the social, moral, religious, and political aspects of censorship and surveillance. It also explores the techniques of technologically supported censorship and surveillance. Highlighting a range of topics such as political censorship, propaganda, and information privacy, this multi-volume book is geared towards government officials, leaders, professionals, policymakers, media specialists, academicians, and researchers interested in the various facets of censorship and surveillance.

Here's the book you need to prepare for Cisco's Secure Intrusion Detection (CSIDS) and SAFE Implementation (CSI) exams. This Study Guide was developed to meet the exacting requirements of today's certification candidates. In addition to the focused and accessible instructional approach that has earned Sybex the "Best Study Guide" designation in the 2003 CertCities Readers Choice Awards, this two-in-one Study Guide provides: Focused coverage on working with a Cisco Intrusion Detection System and SAFE Implementation Practical examples and insights drawn from real-world experience Leading-edge exam preparation software, including the Sybex testing engine and electronic flashcards for your Palm Authoritative coverage of all exam objectives, including: Secure Intrusion Detection: Designing a Cisco IDS protection solution Installing and configuring a Cisco IDS Sensor Tuning and customizing signatures to work optimally in specific environments Performing device management of supported blocking devices Performing maintenance operations Monitoring a protection solution for small and medium networks Managing a large scale deployment of Cisco IDS Sensors SAFE Implementation Security Fundamentals Architectural Overview Cisco Security Portfolio SAFE Small Network Design SAFE Medium Network Design SAFE Remote-User Network Implementation Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

As populations have continued to grow and expand, many people have made their homes in cities around the globe. With this increase in city living, it is becoming vital to create intelligent urban environments that efficiently support this growth and simultaneously provide friendly and progressive environments to both businesses and citizens alike. *Smart Cities and Smart Spaces: Concepts, Methodologies, Tools, and Applications* is an innovative reference source that discusses social, economic, and environmental issues surrounding the evolution of smart cities. Highlighting a range of topics such as smart destinations, urban planning, and intelligent

communities, this multi-volume book is designed for engineers, architects, facility managers, policymakers, academicians, and researchers interested in expanding their knowledge on the emerging trends and topics involving smart cities.

Updated annually to keep up with the increasingly fast pace of change in the field, the Information Security Management Handbook is the single most comprehensive and up-to-date resource on information security (IS) and assurance. Facilitating the up-to-date understanding required of all IS professionals, the Information Security Management Handbook

Every year, in response to new technologies and new laws in different countries and regions, there are changes to the fundamental knowledge, skills, techniques, and tools required by all IT security professionals. In step with the lightning-quick, increasingly fast pace of change in the technology field, the Information Security Management Handbook, updated yearly, has become the standard on which all IT security programs and certifications are based. It reflects new updates to the Common Body of Knowledge (CBK) that IT security professionals all over the globe need to know. Captures the crucial elements of the CBK Exploring the ten domains of the CBK, the book explores access control, telecommunications and network security, information security and risk management, application security, and cryptography. In addition, the expert contributors address security architecture and design, operations security, business continuity planning and disaster recovery planning. The book also covers legal regulations, compliance, investigation, and physical security. In this anthology of treatises dealing with the management and technical facets of information security, the contributors examine varied topics such as anywhere computing, virtualization, podslurping, quantum computing, mashups, blue snarfing, mobile device theft, social computing, voting machine insecurity, and format string vulnerabilities. Also available on CD-ROM Safeguarding information continues to be a crucial concern of all IT professionals. As new risks threaten the security of our systems, it is imperative that those charged with protecting that information continually update their armor of knowledge to guard against tomorrow's hackers and software vulnerabilities. This comprehensive Handbook, also available in fully searchable CD-ROM format keeps IT professionals abreast of new developments on the security horizon and reinforces timeless concepts, providing them with the best information, guidance, and counsel they can obtain. For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network. As a final exam preparation tool, CCIE Security v3.0 Quick Reference provides a concise review of all objectives on the CCIE Security written exam v3.0 (350-018). This eBook provides you with detailed, graphical-based information, highlighting only the key topics in cram-style format. With this document as your guide, you will review topics on security protocols, encryption, application protocols, security technologies, Cisco IOS security features, Cisco ASA, security management, wireless security, IPv6 security, security policies, network attack mitigation, and computer forensics . This fact-filled Quick Reference allows you to get all-important information at a glance, helping you to focus your study on areas of weakness and to enhance memory retention of essential exam concepts.

InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

The use of digital surveillance technology is rapidly growing as it becomes significantly cheaper for live and remote monitoring. The second edition of Digital Video Surveillance and Security provides the most current and complete reference for security

professionals and consultants as they plan, design, and implement surveillance systems to secure their places of business. By providing the necessary explanations of terms, concepts, and technological capabilities, this revised edition addresses the newest technologies and solutions available on the market today. With clear descriptions and detailed illustrations, Digital Video Surveillance and Security is the only book that shows the need for an overall understanding of the digital video surveillance (DVS) ecosystem. Highly visual with easy-to-read diagrams, schematics, tables, troubleshooting charts, and graphs Includes design and implementation case studies and best practices Uses vendor-neutral comparisons of the latest camera equipment and recording options

Cisco TelePresence™ Systems (CTS) create live, face-to-face meeting experiences, providing a breakthrough virtual conferencing and collaboration experience that transcends anything previously achievable by videoconferencing. Although the business case for deploying CTS is compelling, implementing it requires advanced knowledge of the latest networking technologies, an attention to detail, and thorough planning. In this book, four leading CTS technical experts cover everything you need to know to successfully design and deploy CTS in your environment. The authors cover every element of a working CTS solution: video, audio, signaling protocols and call processing, LAN and WAN design, multipoint, security, inter-company connectivity, and much more. They deliver start-to-finish coverage of CTS design for superior availability, QoS support, and security in converged networks. They also present the first chapter-length design guide of its kind detailing the room requirements and recommendations for lighting, acoustics, and ambience within various types of TelePresence rooms. Cisco Telepresence Fundamentals is an indispensable resource for all technical professionals tasked with deploying CTS, including netadmins, sysadmins, audio/video specialists, VoIP specialists, and operations staff. This is the only book that: Introduces every component of a complete CTS solution and shows how they work together Walks through connecting CTS in real-world environments Demonstrates how to secure virtual meetings using Cisco firewalls and security protocols Includes a full chapter on effective TelePresence room design Walks through every aspect of SIP call signaling design, including both single-cluster and intercluster examples for use in a TelePresence environment Provides prequalification, room, and network path assessment considerations to help you anticipate and avoid problems Tim Sziget, CCIE® No. 9794, technical leader within the Cisco® Enterprise Systems Engineering team, is responsible for defining Cisco TelePresence network deployment best practices. He also coauthored the Cisco Press book End-to-End QoS Network Design. Kevin McMenemy, senior manager of technical marketing in the Cisco TelePresence Systems Business Unit, has spent the past nine years at Cisco supporting IP videoconferencing, video telephony, and unified communications. Roland Saville, technical leader for the Cisco Enterprise Systems Engineering team, tests and develops best-practice design guides for Cisco TelePresence enterprise deployments. Alan Glowacki is a Cisco technical marketing engineer responsible for supporting Cisco TelePresence customers and sales teams. Use Cisco TelePresence Systems (CTS) to enhance global teamwork and collaboration, both within your own enterprise and with your customers, partners, and vendors Understand how the various components of the Cisco TelePresence Solution connect and work together Integrate CTS into existing LAN, enterprise, and service

provider networks Successfully design and deploy a global TelePresence network Understand the importance of room dimensions, acoustics, lighting, and ambience and how to properly design the physical room environment Provide the high levels of network availability CTS requires Leverage the Cisco quality of service (QoS) tools most relevant to CTS network provisioning and deployment Systematically secure CTS using TLS, dTLS, sRTP, SSH, and Cisco firewalls This book is part of the Cisco Press® Fundamentals Series. Books in this series introduce networking professionals to new networking technologies, covering network topologies, sample deployment concepts, protocols, and management techniques. Category: IP Communications Covers: Cisco TelePresence Systems

Implementing Cisco IOS Network Security (IINS) Foundation Learning Guide Second Edition Foundation learning for the CCNA Security IINS 640-554 exam Implementing Cisco IOS Network Security (IINS) Foundation Learning Guide, Second Edition, is a Cisco-authorized, self-paced learning tool for CCNA® Security 640-554 foundation learning. This book provides you with the knowledge needed to secure Cisco® networks. By reading this book, you will gain a thorough understanding of how to develop a security infrastructure, recognize threats and vulnerabilities to networks, and mitigate security threats. This book focuses on using Cisco IOS routers to protect the network by capitalizing on their advanced features as a perimeter router, firewall, intrusion prevention system, and site-to-site VPN device. The book also covers the use of Cisco Catalyst switches for basic network security, the Cisco Secure Access Control System (ACS), and the Cisco Adaptive Security Appliance (ASA). You learn how to perform basic tasks to secure a small branch office network using Cisco IOS security features available through web-based GUIs (Cisco Configuration Professional) and the CLI on Cisco routers, switches, and ASAs. Whether you are preparing for CCNA Security certification or simply want to gain a better understanding of Cisco IOS security fundamentals, you will benefit from the information provided in this book. Implementing Cisco IOS Network Security (IINS) Foundation Learning Guide, Second Edition, is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. -- Develop a comprehensive network security policy to counter threats against information security -- Secure borderless networks -- Learn how to use Cisco IOS Network Foundation Protection (NFP) and Cisco Configuration Professional (CCP) -- Securely implement the management and reporting features of Cisco IOS devices -- Deploy Cisco Catalyst Switch security features -- Understand IPv6 security features -- Plan threat control strategies -- Filter traffic with access control lists -- Configure ASA and Cisco IOS zone-based firewalls -- Implement intrusion prevention systems (IPS) and network address translation (NAT) -- Secure connectivity with site-to-site IPsec VPNs and remote access VPNs This volume is in the Foundation Learning Guide Series offered by Cisco Press®. These guides are developed together with Cisco as the only authorized, self-paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams. Category: Cisco Certification Covers: CCNA Security IINS exam 640-554

Cisco Systems, Inc. is the worldwide leader in networking for the Internet, and its Intrusion Detection Systems line of products is making inroads in the IDS market segment, with major upgrades having happened in February of 2003. Cisco Security Professional's Guide to Secure Intrusion Detection Systems is a comprehensive, up-to-date guide to the hardware and software that comprise the Cisco IDS. Cisco Security Professional's Guide to Secure Intrusion Detection Systems does more than show network engineers how to set up and manage this line of best selling products ... it walks them step by step through all the objectives of the Cisco Secure Intrusion Detection System course (and corresponding exam) that network engineers must pass on their way to achieving sought-after CCSP certification. Offers complete coverage of the Cisco Secure Intrusion Detection Systems Exam (CSIDS 9E0-100) for CCSPs "Configuring Cisco IP Security" covers the full range of Cisco Secure hardware and software solutions--including PIX Firewall, Intrusion Detection System and Authentication Agent--to help engineers and administrators protect their ISPs, corporate networks and e-commerce sites. 50 illustrations, 70 screen shots, 10 worksheets. Government and companies have already invested hundreds of millions of dollars in the convergence of physical and logical security solutions, but there are no books on the topic. This book begins with an overall explanation of information security, physical security, and why approaching these two different types of security in one way (called convergence) is so critical in today's changing security landscape. It then details enterprise security management as it relates to incident detection and incident management. This is followed by detailed examples of implementation, taking the reader through cases addressing various physical security technologies such as: video surveillance, HVAC, RFID, access controls, biometrics, and more. This topic is picking up momentum every day with every new computer exploit, announcement of a malicious insider, or issues related to terrorists, organized crime, and nation-state threats The author has over a decade of real-world security and management expertise developed in some of the most sensitive and mission-critical environments in the world Enterprise Security Management (ESM) is deployed in tens of thousands of organizations worldwide

Implementing Cisco IOS Network Security (IINS) is a Cisco-authorized, self-paced learning tool for CCNA® Security foundation learning. This book provides you with the knowledge needed to secure Cisco® routers and switches and their associated networks. By reading this book, you will gain a thorough understanding of how to troubleshoot and monitor network devices to maintain integrity, confidentiality, and availability of data and devices, as well as the technologies that Cisco uses in its security infrastructure. This book focuses on the necessity of a comprehensive security policy and how it affects the posture of the network. You will learn how to perform basic tasks to secure a small branch type office network using Cisco IOS® security features available through the Cisco Router and Security Device Manager (SDM) web-based graphical user interface (GUI) and through the command-line interface (CLI) on Cisco routers and switches. The author also provides, when appropriate, parallels with Cisco ASA appliances. Whether you are preparing for CCNA Security certification or simply want to gain a better understanding of Cisco IOS security fundamentals, you will benefit from the information provided in this book. Implementing Cisco IOS Network Security (IINS) is part of a recommended learning path from Cisco that includes simulation and

hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. Develop a comprehensive network security policy to counter threats against information security Configure routers on the network perimeter with Cisco IOS Software security features Configure firewall features including ACLs and Cisco IOS zone-based policy firewalls to perform basic security operations on a network Configure site-to-site VPNs using Cisco IOS features Configure IPS on Cisco network routers Configure LAN devices to control access, resist attacks, shield other network devices and systems, and protect the integrity and confidentiality of network traffic This volume is in the Certification Self-Study Series offered by Cisco Press®. Books in this series provide officially developed self-study solutions to help networking professionals understand technology implementations and prepare for the Cisco Career Certifications examinations.

This book constitutes the refereed proceedings of the 31st IFIP TC 11 International Conference on ICT Systems Security and Privacy Protection, SEC 2016, held in Ghent, Belgium, in May/June 2016. The 27 revised full papers presented were carefully reviewed and selected from 139 submissions. The papers are organized in topical sections on cryptographic protocols, human aspects of security, cyber infrastructure, social networks, software vulnerabilities, TPM and internet of things, sidechannel analysis, software security, and privacy.

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.

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce. This handbook covers the ten domains of the Information Security Common Body of Knowledge. It is designed to empower the security professional and the chief information officer with information such that they can do their duty, protect the information assets of their organizations.

The Power of IP Video Unleashing Productivity with Visual Networking Jennifer C. Baker Felicia Brych Dalke Michael Mitchell Nader Nanjiani The definitive guide to deriving business value from IP video solutions Using today's rich new IP-based technologies for video, voice, and web collaboration, businesses can streamline and accelerate processes, increase productivity, and improve both top and bottom lines. In The Power of IP Video, a team of Cisco® experts shows you exactly how to make the most of these powerful new IP video solutions. Writing for both business and technical decision makers, the authors present new best practices for optimizing virtually any program or process and for improving collaboration between virtually every employee, customer, supplier, and stakeholder. Drawing on their pioneering experience working with IP video internally and supporting the top Cisco customers, the authors show you how to make the business case for IP video and offer practical guidance for successful implementation. To demonstrate IP video at work, they also present an extensive set of case studies from large, medium-size, and small companies in many leading industries. Along the way, they demonstrate the real-world application and value of several key Cisco solutions, including Cisco Unified MeetingPlace®, Cisco Unified Video Advantage, Cisco Unified Communications Manager, Cisco TelePresence™, Cisco Digital Media Management, video surveillance, and WebEx®. Use IP video to meet the needs of knowledge workers while reducing travel and other costs Extend IP video from the office to anywhere work takes you Identify opportunities to leverage IP video in finance, marketing, sales, manufacturing, and R&D Apply IP video in financial services, healthcare, e-learning, high tech, sports and

entertainment, and other industries Use IP video to “scale” the impact of your senior executives Use rich media to systematically eliminate barriers to global collaboration while saving money Estimate the business value of visual networking applications Jennifer Baker, senior manager in the Worldwide Technology Practice group at Cisco, leads marketing efforts around TelePresence, Digital Media Management, and related solutions. Felicia Brych Dalke is marketing operations manager for Collaboration Business Services. Mike Mitchell is currently director of the Collaboration Business Solutions team at Cisco, responsible for connecting business processes with visual networking tools. Nader Nanjiani is marketing manager for Unified IP Communications at Cisco, and co-author of *The Business Case for E-learning* (Cisco Press). This volume is in the Network Business Series offered by Cisco Press®. Books in this series provide IT executives, decision makers, and networking professionals with pertinent information about today’s most important technologies and business strategies. Category: Networking: IP Communications Covers: IP Video

Cisco's complete, authoritative guide to Authentication, Authorization, and Accounting (AAA) solutions with CiscoSecure ACS AAA solutions are very frequently used by customers to provide secure access to devices and networks AAA solutions are difficult and confusing to implement even though they are almost mandatory Helps IT Pros choose the best identity management protocols and designs for their environments Covers AAA on Cisco routers, switches, access points, and firewalls This is the first complete, authoritative, single-source guide to implementing, configuring, and managing Authentication, Authorization and Accounting (AAA) identity management with CiscoSecure Access Control Server (ACS) 4 and 5. Written by three of Cisco's most experienced CiscoSecure product support experts, it covers all AAA solutions (except NAC) on Cisco routers, switches, access points, firewalls, and concentrators. It also thoroughly addresses both ACS configuration and troubleshooting, including the use of external databases supported by ACS. Each of this book's six sections focuses on specific Cisco devices and their AAA configuration with ACS. Each chapter covers configuration syntax and examples, debug outputs with explanations, and ACS screenshots. Drawing on the authors' experience with several thousand support cases in organizations of all kinds, AAA Identity Management Security presents pitfalls, warnings, and tips throughout. Each major topic concludes with a practical, hands-on lab scenario corresponding to a real-life solution that has been widely implemented by Cisco customers. This book brings together crucial information that was previously scattered across multiple sources. It will be indispensable to every professional running CiscoSecure ACS 4 or 5, as well as all candidates for CCSP and CCIE (Security or R and S) certification.

Protecting systems within an enterprise has proven as important to overall security as securing the enterprise perimeter. Over the past few years, the number of vulnerabilities stemming from weaknesses in applications and operating systems has grown dramatically. In direct correlation with the number of weaknesses discovered, the number of viruses, worms, and security attacks has also exploded across the Internet. To add to the typical virus issues that businesses have had to confront, there are also malicious programs infiltrating organizations today in the form of spyware and adware. Prevent day-zero attacks Enforce acceptable-use policies Develop host-IPS project implementation plans Evaluate management hierarchy installation options, including single-server, multiserver, and built-in database usage Learn about CSA agents and manual and scripted installation options Understand policy components and custom policy creation Use and filter information from CSA event logs Troubleshoot CSA deployments with agent and management server logs and built-in troubleshooting tools Protecting systems where the private data and intellectual property resides is no longer considered a function of perimeter defense systems but has instead become the domain of endpoint protection software, such as host Intrusion Prevention Systems (IPS). Cisco® Security Agent (CSA) is the Cisco Systems® host-IPS solution. CSA provides the security

controls that corporations need to deal with threats to host and desktop computing resources. **Advanced Host Intrusion Prevention with CSA** is a practical guide to getting the most out of CSA deployments. Through methodical explanation of advanced CSA features and concepts, this book helps ease the fears of security administrators seeking to install and configure a host IPS. This book explains in detail such topics as installation of the management servers, installation of the agents for mass deployment, granular agent policy creation, advanced policy creation, real-world troubleshooting techniques, and best practices in implementation methodology. This guide also provides a practical installation framework taken from the actual installation and support experience of the authors. This book helps you implement host IPS appropriately, giving your organization better protection from the various threats that are impacting your business while at the same time enabling you to comply with various legal requirements put forth in such legislation as HIPAA, SOX, SB1386, and VISA PCI.

A Practical Introduction to Enterprise Network and Security Management, Second Edition, provides a balanced understanding of introductory and advanced subjects in both computer networking and cybersecurity. Although much of the focus is on technical concepts, managerial issues related to enterprise network and security planning and design are explained from a practitioner's perspective. Because of the critical importance of cybersecurity in today's enterprise networks, security-related issues are explained throughout the book, and four chapters are dedicated to fundamental knowledge. Challenging concepts are explained so readers can follow through with careful reading. This book is written for those who are self-studying or studying information systems or computer science in a classroom setting. If used for a course, it has enough material for a semester or a quarter.

FEATURES Provides both theoretical and practical hands-on knowledge and learning experiences for computer networking and cybersecurity Offers a solid knowledge base for those preparing for certificate tests, such as CompTIA and CISSP Takes advantage of actual cases, examples, industry products, and services so students can relate concepts and theories to practice Explains subjects in a systematic and practical manner to facilitate understanding Includes practical exercise questions that can be individual or group assignments within or without a classroom Contains several information-rich screenshots, figures, and tables carefully constructed to solidify concepts and enhance visual learning The text is designed for students studying information systems or computer science for the first time. As a textbook, this book includes hands-on assignments based on the Packet Tracer program, an excellent network design and simulation tool from Cisco. Instructor materials also are provided, including PowerPoint slides, solutions for exercise questions, and additional chapter questions from which to build tests.

Programming has become a significant part of connecting theoretical development and scientific application computation. Computer programs and processes that take into account the goals and needs of the user meet with the greatest success, so it behooves software engineers to consider the human element inherent in every line of code they write. **Research Anthology on Recent Trends, Tools, and Implications of Computer Programming** is a vital reference source that examines the latest scholarly material on trends, techniques, and uses of various programming applications and examines the benefits and challenges of these computational developments. Highlighting a range of topics such as coding standards, software engineering, and computer systems development, this multi-volume book is ideally designed for programmers, computer scientists, software developers, analysts, security experts, IoT software programmers, computer and software engineers, students, professionals, and researchers.

IPv6 Security Protection measures for the next Internet Protocol As the world's networks migrate to the IPv6 protocol, networking professionals need a clearer understanding of the security risks, threats, and challenges this transition presents. In **IPv6 Security**, two of the world's leading Internet security practitioners review each potential security issue introduced

by IPv6 networking and present today's best solutions. IPv6 Security offers guidance for avoiding security problems prior to widespread IPv6 deployment. The book covers every component of today's networks, identifying specific security deficiencies that occur within IPv6 environments and demonstrating how to combat them. The authors describe best practices for identifying and resolving weaknesses as you maintain a dual stack network. Then they describe the security mechanisms you need to implement as you migrate to an IPv6-only network. The authors survey the techniques hackers might use to try to breach your network, such as IPv6 network reconnaissance, address spoofing, traffic interception, denial of service, and tunnel injection. The authors also turn to Cisco® products and protection mechanisms. You learn how to use Cisco IOS® and ASA firewalls and ACLs to selectively filter IPv6 traffic. You also learn about securing hosts with Cisco Security Agent 6.0 and about securing a network with IOS routers and switches. Multiple examples are explained for Windows, Linux, FreeBSD, and Solaris hosts. The authors offer detailed examples that are consistent with today's best practices and easy to adapt to virtually any IPv6 environment. Scott Hogg, CCIE® No. 5133, is Director of Advanced Technology Services at Global Technology Resources, Inc. (GTRI). He is responsible for setting the company's technical direction and helping it create service offerings for emerging technologies such as IPv6. He is the Chair of the Rocky Mountain IPv6 Task Force. Eric Vyncke, Cisco Distinguished System Engineer, consults on security issues throughout Europe. He has 20 years' experience in security and teaches security seminars as a guest professor at universities throughout Belgium. He also participates in the Internet Engineering Task Force (IETF) and has helped several organizations deploy IPv6 securely.

Understand why IPv6 is already a latent threat in your IPv4-only network
Plan ahead to avoid IPv6 security problems before widespread deployment
Identify known areas of weakness in IPv6 security and the current state of attack tools and hacker skills
Understand each high-level approach to securing IPv6 and learn when to use each
Protect service provider networks, perimeters, LANs, and host/server connections
Harden IPv6 network devices against attack
Utilize IPsec in IPv6 environments
Secure mobile IPv6 networks
Secure transition mechanisms in use during the migration from IPv4 to IPv6
Monitor IPv6 security
Understand the security implications of the IPv6 protocol, including issues related to ICMPv6 and the IPv6 header structure
Protect your network against large-scale threats by using perimeter filtering techniques and service provider—focused security practices
Understand the vulnerabilities that exist on IPv6 access networks and learn solutions for mitigating each
This security book is part of the Cisco Press® Networking Technology Series. Security titles from Cisco Press help networking professionals secure critical data and resources, prevent and mitigate network attacks, and build end-to-end self-defending networks. Category: Networking: Security Covers: IPv6 Security
IPv6 Security
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