

Remote Access Vpn Cisco Systems

Create and manage highly-secure Ipsec VPNs with IKEv2 and Cisco FlexVPN The IKEv2 protocol significantly improves VPN security, and Cisco's FlexVPN offers a unified paradigm and command line interface for taking full advantage of it. Simple and modular, FlexVPN relies extensively on tunnel interfaces while maximizing compatibility with legacy VPNs. Now, two Cisco network security experts offer a complete, easy-to-understand, and practical introduction to IKEv2, modern IPsec VPNs, and FlexVPN. The authors explain each key concept, and then guide you through all facets of FlexVPN planning, deployment, migration, configuration, administration, troubleshooting, and optimization. You'll discover how IKEv2 improves on IKEv1, master key IKEv2 features, and learn how to apply them with Cisco FlexVPN. IKEv2 IPsec Virtual Private Networks offers practical design examples for many common scenarios, addressing IPv4 and IPv6, servers, clients, NAT, pre-shared keys, resiliency, overhead, and more. If you're a network engineer, architect, security specialist, or VPN administrator, you'll find all the knowledge you need to protect your organization with IKEv2 and FlexVPN. Understand IKEv2 improvements: anti-DDoS cookies, configuration payloads, acknowledged responses, and more Implement modern secure VPNs with Cisco IOS and IOS-XE Plan and deploy IKEv2 in diverse real-world environments Configure IKEv2 proposals, policies, profiles, keyrings, and authorization Use advanced IKEv2 features, including SGT transportation and IKEv2 fragmentation Understand FlexVPN, its tunnel interface types, and IOS AAA infrastructure Implement FlexVPN Server with EAP authentication, pre-shared keys, and digital signatures Deploy, configure, and customize FlexVPN clients Configure, manage, and troubleshoot the FlexVPN Load Balancer Improve FlexVPN resiliency with dynamic tunnel source, backup peers, and backup tunnels Monitor IPsec VPNs with AAA, SNMP, and Syslog Troubleshoot connectivity, tunnel creation, authentication, authorization, data encapsulation, data encryption, and overlay routing Calculate IPsec overhead and fragmentation Plan your IKEv2 migration: hardware, VPN technologies, routing, restrictions, capacity, PKI, authentication, availability, and more

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

This up-to-the-minute guide helps you become more proactive and meet the growing demand for integrated audit services in the 21st century. Wide-ranging in scope, Information Technology Audits offers expert analysis, practical tools, and real-world techniques designed to assist in preparing for and performing integrated IT audits. Written by a seasoned auditor with more than 22 years of IT audit experience, Information Technology Audits provides the first practical, hands-on look at how organizations use and control information to meet business objectives, and offers strategies to assess whether the company's controls adequately protect its information systems. Practice aids are available on a free companion CD-ROM.

With increased use of Internet connectivity and less reliance on private WAN networks, virtual private networks (VPNs) provide a much-needed secure method of transferring critical information. As Cisco Systems integrates security and access features into routers, firewalls, clients, and concentrators, its solutions become ever more accessible to companies with networks of all sizes. The Complete Cisco VPN Configuration Guide contains detailed explanations of all Cisco VPN products, describing how to set up IPsec and Secure Sockets Layer (SSL) connections on any type of Cisco device, including concentrators, clients, routers, or Cisco PIX and Cisco ASA security appliances. With copious configuration examples and troubleshooting scenarios, it offers clear information on VPN implementation designs. - A complete resource for understanding VPN components and VPN design issues - Learn how to employ state-of-the-art VPN connection types and implement complex VPN configurations on Cisco devices, including routers, Cisco PIX and Cisco ASA security appliances, concentrators, and remote access clients - Discover troubleshooting tips and techniques from real-world scenarios based on the author's vast field experience - Filled with relevant configurations you can use immediately in your own network

Fully updated: The complete guide to Cisco Identity Services Engine solutions Using Cisco Secure Access Architecture and Cisco Identity Services Engine, you can secure and gain control of access to your networks in a Bring Your Own Device (BYOD) world. This second edition of Cisco ISE for BYOD and Secure Unified Access contains more than eight brand-new chapters as well as extensively updated coverage of all the previous topics in the first edition book to reflect the latest technologies, features, and best practices of the ISE solution. It begins by reviewing today's business case for identity solutions. Next, you walk through ISE foundational topics and ISE design. Then you explore how to build an access security policy using the building blocks of ISE. Next are the in-depth and advanced ISE configuration sections, followed by the troubleshooting and monitoring chapters. Finally, we go in depth on the new TACACS+ device administration solution that is new to ISE and to this second edition. With this book, you will gain an understanding of ISE configuration, such as identifying users, devices, and security posture; learn about Cisco Secure Access solutions; and master advanced techniques for securing access to networks, from dynamic segmentation to guest access and everything in between. Drawing on their cutting-edge experience supporting Cisco enterprise customers, the authors offer in-depth coverage of the complete lifecycle for all relevant ISE solutions, making this book a cornerstone resource whether you're an architect, engineer, operator, or IT manager. · Review evolving security challenges associated with borderless networks, ubiquitous mobility, and consumerized IT · Understand Cisco Secure Access, the Identity Services Engine (ISE), and the building blocks of complete solutions · Design an ISE-enabled network, plan/distribute ISE functions, and prepare for rollout · Build context-aware security policies for network access, devices, accounting, and audit · Configure device profiles, visibility, endpoint posture assessments, and guest services · Implement secure guest lifecycle management, from WebAuth to sponsored guest access · Configure ISE, network access devices, and supplicants, step by step · Apply best practices to avoid the pitfalls of BYOD secure access · Set up efficient distributed ISE deployments · Provide remote access VPNs with ASA and Cisco ISE · Simplify administration with self-service onboarding and registration · Deploy security group access with Cisco TrustSec · Prepare for high availability and disaster scenarios · Implement passive identities via ISE-PIC and EZ Connect · Implement TACACS+ using ISE · Monitor, maintain, and troubleshoot ISE and your entire Secure Access system · Administer device AAA with Cisco IOS, WLC, and Nexus

A firewall is as good as its policies and the security of its VPN connections. The latest generation of firewalls offers a dizzying array of powerful options; the key to success is to write concise policies that provide the appropriate level of access while maximizing security. This book covers the leading firewall products: Cisco PIX, Check Point NGX, Microsoft ISA Server, Juniper's NetScreen Firewall, and SonicWall. It describes in plain English what features can be controlled by a policy, and walks the reader

through the steps for writing the policy to fit the objective. Because of their vulnerability and their complexity, VPN policies are covered in more depth with numerous tips for troubleshooting remote connections. · The only book that focuses on creating policies that apply to multiple products. · Included is a bonus chapter on using Ethereal, the most popular protocol analyzer, to monitor and analyze network traffic. · Shows what features can be controlled by a policy, and walks you through the steps for writing the policy to fit the objective at hand

The official study guide for the Cisco Secure VPN exam #9E0-121 The only Cisco authorized exam certification guide for the new CSVPN exam Pre- and post-chapter quizzes help assess knowledge and identify areas of weakness Overviews and Foundation Summaries present complete and quick review of all CSVPN exam topics CD-ROM test engine provides practice with more than 200 questions As security demands continue to increase for enterprise and service provider networks, the number of employees working from remote locations requiring an efficient and rapid virtual private network connection grows as well. The Cisco Secure line of products and services are focused on providing the seamless operation of these remote networks with the maximum level of security available. Organizations using this suite of products and services need networking professionals with proven skills at getting the highest levels of both security and network operability. This need has created a booming demand for the Cisco Systems security certifications that verify those skills and abilities. The CSVPN exam is one of the components of the Cisco Systems security designation. "CSS-1 Cisco Secure VPN Exam Certification Guide" provides CSVPN exam candidates with a comprehensive preparation tool for testing success. With pre- and post-chapter tests, a CD-ROM-based testing engine with more than 200 questions, and comprehensive training on all exam topics, this title brings the proven exam preparation tools from the popular Cisco Press Exam Certification Guide series to the CSVPN candidate. John Roland, CCNP, CCDP, CSS-1, is a security specialist for Ajilon Consulting and has worked in the IT field for more than 22years--from COBOL programming on IBM mainframes, to LAN/WAN implementation on military networks, to developing Cisco certification training materials. Mark J. Newcomb is the owner and lead Security Engineer for Secure Networks in Spokane, Washington. Mark has more than 20 years experience in the networking industry, focusing on the financial and medical industries.

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.

CCIE Professional Development Network Security Technologies and Solutions A comprehensive, all-in-one reference for Cisco network security Yusuf Bhajji, CCIE No. 9305 Network Security Technologies and Solutions is a comprehensive reference to the most cutting-edge security products and methodologies available to networking professionals today. This book helps you understand and implement current, state-of-the-art network security technologies to ensure secure communications throughout the network infrastructure. With an easy-to-follow approach, this book serves as a central repository of security knowledge to help you implement end-to-end security solutions and provides a single source of knowledge covering the entire range of the Cisco network security portfolio. The book is divided into five parts mapping to Cisco security technologies and solutions: perimeter security, identity security and access management, data privacy, security monitoring, and security management. Together, all these elements enable dynamic links between customer security policy, user or host identity, and network infrastructures. With this definitive reference, you can gain a greater understanding of the solutions available and learn how to build integrated, secure networks in today's modern, heterogeneous networking environment. This book is an excellent resource for those seeking a comprehensive reference on mature and emerging security tactics and is also a great study guide for the CCIE Security exam. "Yusuf's extensive experience as a mentor and advisor in the security technology field has honed his ability to translate highly technical information into a straight-forward, easy-to-understand format. If you're looking for a truly comprehensive guide to network security, this is the one!" –Steve Gordon, Vice President, Technical Services, Cisco Yusuf Bhajji, CCIE No. 9305 (R&S and Security), has been with Cisco for seven years and is currently the program manager for Cisco CCIE Security certification. He is also the CCIE Proctor in the Cisco Dubai Lab. Prior to this, he was technical lead for the Sydney TAC Security and VPN team at Cisco. Filter traffic with access lists and implement security features on switches Configure Cisco IOS router firewall features and deploy ASA and PIX Firewall appliances Understand attack vectors and apply Layer 2 and Layer 3 mitigation techniques Secure management access with AAA Secure access control using multifactor authentication technology Implement identity-based network access control Apply the latest wireless LAN security solutions Enforce security policy compliance with Cisco NAC Learn the basics of cryptography and implement IPsec VPNs, DMVPN, GET VPN, SSL VPN, and MPLS VPN technologies Monitor network activity and security incident response with network and host intrusion prevention, anomaly detection, and security monitoring and correlation Deploy security management solutions such as Cisco Security Manager, SDM, ADSM, PDM, and IDM Learn about regulatory compliance issues such as GLBA, HIPPA, and SOX This book is part of the Cisco CCIE Professional Development Series from Cisco Press, which offers expert-level instruction on network design, deployment, and support methodologies to help networking professionals manage complex networks and prepare for CCIE exams. Category: Network Security Covers: CCIE Security Exam

The attacks on computers and business networks are growing daily, and the need for security professionals who understand how malfeasants perform attacks and compromise networks is a growing requirement to counter the threat. Network security education generally lacks appropriate textbooks with detailed, hands-on exercises that include both offensive and defensive techniques. Using step-by-step processes to build and generate attacks using offensive techniques, Network Attacks and Defenses: A Hands-on Approach enables students to implement appropriate network security solutions within a laboratory environment. Topics covered in the labs include: Content Addressable Memory (CAM) table poisoning attacks on network switches Address Resolution Protocol (ARP) cache poisoning attacks The detection and prevention of abnormal ARP traffic Network traffic sniffing and the detection of Network Interface Cards (NICs) running in promiscuous mode Internet Protocol-Based Denial-of-Service (IP-based DoS) attacks Reconnaissance traffic Network traffic filtering and inspection Common mechanisms used for router security and device hardening Internet Protocol Security Virtual Private Network (IPsec VPN) security solution protocols, standards, types, and deployments Remote Access IPsec VPN security solution architecture and its design, components, architecture, and implementations These practical exercises go beyond theory to allow students to better anatomize and elaborate offensive and defensive techniques. Educators can use the model scenarios described in this book to design and implement innovative hands-on security exercises. Students who master the techniques in this book will be well armed to counter a broad range of network security threats. Covers the most important and common configuration scenarios and features which will put you on track to start implementing ASA firewalls right away.

In just 24 sessions of one hour or less, learn how to use today's key networking techniques and technologies to build, secure, and troubleshoot both wired and wireless networks. Using this book's straightforward, step-by-step approach, you master every skill you need—from working with Ethernet and Bluetooth to spam prevention to network troubleshooting. Each lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success! Step-by-step instructions carefully walk you through the most common networking tasks. Q&A sections at the end of each hour help you test your knowledge. By the Way notes present interesting information related to the discussion. Did You Know? tips offer advice or show you easier ways to perform tasks. Watch Out! cautions alert you to

possible problems and give you advice on how to avoid them. Learn how to... Choose the right network hardware and software and use it to build efficient, reliable networks Implement secure, high-speed Internet connections Provide reliable remote access to your users Administer networks to support users of Microsoft, Linux, and UNIX environments Use low-cost Linux servers to provide file and print services to Windows PCs Protect your networks and data against today's most dangerous threats Use virtualization to save money and improve business flexibility Utilize RAID technologies to provide flexible storage at lower cost Troubleshoot and fix network problems one step at a time Preview and prepare for the future of networking

As a final exam preparation tool, the CCNP Security VPN 642-647 Quick Reference provides a concise review of all objectives on the new CCNP Security VPN exam (642-647). 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 deploying Cisco ASA-based VPN solutions. 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.

With the recent availability of high-speed Internet connections to the home and the continued move of workers out of central office locations (whether for travel, telecommuting, or branch office expansion), Virtual Private Networks (VPNs) have become a critical part of corporate network architectures. VPNs use advanced encryption and tunneling to permit your organization to establish secure, end-to-end, private network connections over third-party networks, such as the Internet. This new networking paradigm not only adds to the efficiency of the corporate workforce, but it also saves money by leveraging third-party networks and allows you to scale your networks with greater ease. Based on the official instructor-led training course of the same name, Cisco Secure Virtual Private Networks is a comprehensive, results-oriented book designed to give you the knowledge you need to plan, deploy, and manage VPNs in your network environment. Beginning with an overview of VPNs and IPsec, the book introduces you to the Cisco VPN family of products. It then delves into the details of configuring and troubleshooting IPsec site-to-site VPNs on Cisco IOS(r) routers and Cisco PIX(r) Firewalls using preshared keys and digital certificates. You learn how to install the VPN 3000 Concentrator and how to configure it for remote access using preshared keys and digital certificates. Monitoring and administration techniques are also presented. The book concludes with a discussion on the scalability solutions available for IPsec VPNs. Each chapter includes an explicit set of learning objectives and concludes with a set of review questions to assess your understanding of the material. Numerous examples are provided throughout, and detailed diagrams help clarify concepts presented in the text. Whether you are preparing for the Cisco Security Specialist 1 certification or simply want to understand and make the most efficient use of VPNs, Cisco Secure Virtual Private Networks provides you with a complete solution for designing, implementing, and managing Cisco VPN networks. Prepare for the Cisco Security Specialist 1 VPN exam with the official CSVPN Coursebook Evaluate the features, functions, and benefits of Cisco VPN products Understand the component technologies that are implemented in Cisco VPN products Learn the procedures, steps, and commands required to configure and test IPsec in Cisco IOS Software and the Cisco PIX Firewall Install and configure the Cisco VPN client to create a secure tunnel to a Cisco VPN Concentrator and Cisco PIX Firewall Configure and verify IPsec in the Cisco VPN Concentrator, Cisco router, and Cisco PIX Firewall Enable interoperability among the Cisco VPN Concentrator, Cisco routers, and Cisco PIX Firewalls Apply scalability and advanced configuration features supported in the Cisco IPsec implementation Andrew G. Mason, CCIE(r) #7144, CSS-1, CCNP(r): Security, and CCDP(r), is the CEO of three UK-based companies: Mason Technologies, CCStudy.com, and Boxing Orange. Andrew has 11 years experience in the networking industry and is currently consulting for the largest ISP in the UK. He is involved daily in the design and implementation of complex secure hosted solutions utilizing products from the Cisco Secure family.

Designing Networks and Services for the Cloud Delivering business-grade cloud applications and services A rapid, easy-to-understand approach to delivering a secure, resilient, easy-to-manage, SLA-driven cloud experience Designing Networks and Services for the Cloud helps you understand the design and architecture of networks and network services that enable the delivery of business-grade cloud services. Drawing on more than 40 years of experience in network and cloud design, validation, and deployment, the authors demonstrate how networks spanning from the Enterprise branch/HQ and the service provider Next-Generation Networks (NGN) to the data center fabric play a key role in addressing the primary inhibitors to cloud adoption—security, performance, and management complexity. The authors first review how virtualized infrastructure lays the foundation for the delivery of cloud services before delving into a primer on clouds, including the management of cloud services. Next, they explore key factors that inhibit enterprises from moving their core workloads to the cloud, and how advanced networks and network services can help businesses migrate to the cloud with confidence. You'll find an in-depth look at data center networks, including virtualization-aware networks, virtual network services, and service overlays. The elements of security in this virtual, fluid environment are discussed, along with techniques for optimizing and accelerating the service delivery. The book dives deeply into cloud-aware service provider NGNs and their role in flexibly connecting distributed cloud resources, ensuring the security of provider and tenant resources, and enabling the optimal placement of cloud services. The role of Enterprise networks as a critical control point for securely and cost-effectively connecting to high-performance cloud services is explored in detail before various parts of the network finally come together in the definition and delivery of end-to-end cloud SLAs. At the end of the journey, you preview the exciting future of clouds and network services, along with the major upcoming trends. If you are a technical professional or manager who must design, implement, or operate cloud or NGN solutions in enterprise or service-provider environments, this guide will be an indispensable resource. * Understand how virtualized data-center infrastructure lays the groundwork for cloud-based services * Move from distributed virtualization to "IT-as-a-service" via automated self-service portals * Classify cloud services and deployment models, and understand the actors in the cloud ecosystem * Review the elements, requirements, challenges, and opportunities associated with network services in the cloud * Optimize data centers via network segmentation, virtualization-aware networks, virtual network services, and service overlays * Systematically secure cloud services * Optimize service and application performance * Plan and implement NGN infrastructure to support and accelerate cloud services * Successfully connect enterprises to the cloud * Define and deliver on end-to-end cloud SLAs * Preview the future of cloud and network services

Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. * Master Cisco CCNP/CCIE ENCOR exam topics * Assess your knowledge with chapter-opening quizzes * Review key concepts with exam preparation tasks This is the eBook edition of the CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide. This eBook does not include access to the Pearson Test Prep practice exams that comes with the print edition. CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide focuses specifically on the objectives for the Cisco CCNP/CCIE ENCOR 350-401 exam. Networking experts Brad Edgeworth, Ramiro Garza Rios, Dave Hucaby, and Jason Gooley share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. This complete study package includes* A test-preparation routine proven to help you pass the exams * Do I Know This Already? quizzes, which enable you to decide how much time you need to spend on each section * Chapter-ending exercises, which help you drill on key concepts you must know thoroughly * Practice

exercises that help you enhance your knowledge * More than 90 minutes of video mentoring from the author * A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies * Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The official study guide helps you master all the topics on the CCNP/CCIE ENCOR exam, including * Enterprise network architecture * Virtualization * Network assurance * Security * Automation

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.

A detailed guide for deploying PPTP, L2TPv2, L2TPv3, MPLS Layer-3, AToM, VPLS and IPSec virtual private networks.

An increasing number of companies are designing and implementing Remote Access Networks, which allow users who are not physically connected to a Wide Area Network (WAN) or Local Area Network (LAN) to access the network's servers, applications and databases or to participate in video conferencing and conference calls. The ability for a remote user to function as if they were in the next office dramatically improves overall efficiency while reducing total cost of ownership. Cisco Systems, the world's largest internetworking vendor, is the pioneer of the enabling technologies for Remote Access Networks. This book will identify and explain all of the Cisco products necessary for designing and building a remote access network and integrating it with legacy systems. This book is a professional reference detailing all of the strategies, tactics and methods for designing, configuring and maintaining Cisco Remote Access Networks. It will include thorough discussions of all Cisco Access Servers and routers. * Demand for information on remote access networks is growing quickly at corporate and administrator level * Cisco remote access networks appeal to businesses as they provide efficient and secure connectivity at reduced cost * Book includes thorough discussions of all Cisco Access Servers and routers

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.

Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. Master Cisco CCNP and CCIE Security Core SCOR 350-701 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide. This eBook does not include access to the companion website with practice exam that comes with the print edition. CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and allow you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide, focuses specifically on the objectives for the Cisco CCNP and CCIE Security SCOR exam. Best-selling author and leading security engineer Omar Santos shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. Well regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will allow you to succeed on the exam the first time. The official study guide helps you master all the topics on the CCNP and CCIE Security SCOR 350-701 exam, including: Cybersecurity fundamentals Cryptography Software-Defined Networking security and network programmability Authentication, Authorization, Accounting (AAA) and Identity Management Network visibility and segmentation Infrastructure security Cisco next-generation firewalls and intrusion prevention systems Virtual Private Networks (VPNs) Securing the cloud Content security Endpoint protection and detection CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/web/learning/index.html

The only complete guide to designing, implementing, and supporting state-of-the-art certificate-based identity solutions with PKI Layered approach is designed to help readers with widely diverse backgrounds quickly learn what they need to know Covers the entire PKI project lifecycle, making complex PKI architectures simple to understand and deploy Brings together theory and practice, including on-the-ground implementers' knowledge, insights, best practices, design choices, and troubleshooting details PKI Uncovered brings together all the techniques IT and security professionals need to apply PKI in any environment, no matter how complex or sophisticated. At the same time, it will help them gain a deep understanding of the foundations of certificate-based identity management. Its layered and modular approach helps readers quickly get the information they need to efficiently plan, design, deploy, manage, or troubleshoot any PKI environment. The authors begin by presenting the foundations of PKI, giving readers the theoretical background they need to understand its mechanisms. Next, they move to high-level design considerations, guiding readers in making the choices most suitable for their own environments. The authors share best practices and experiences drawn from production customer deployments of all types. They organize a series of design "modules" into hierarchical models which are then applied to comprehensive solutions. Readers will be introduced to the use of PKI in multiple environments, including Cisco router-based DMVPN, ASA, and 802.1X. The authors also cover recent innovations such as Cisco GET VPN. Throughout, troubleshooting sections help ensure smooth deployments and give readers an even deeper "under-the-hood" understanding of their implementations.

Umer Khan's first book, Cisco Security Specialist's Guide to PIX Firewalls, ISBN: 1931836639, has consistently maintained its spot as the #1 best-selling PIX book on amazon.com by providing readers with a clear, comprehensive, and independent introduction to PIX Firewall configuration. With the market for PIX Firewalls maintaining double digit growth and several major enhancements to both the PIX Firewall and VPN Client product lines, this book will have enormous appeal with the audience already familiar with his first book. The Cisco Pix firewall is the #1 market leading firewall, owning 43% market share. Cisco is poised to release the newest, completely re-designed version 7 of the Pix operating system in the first quarter of 2004 "Cisco Pix Firewalls: configure | manage | troubleshoot" Covers all objectives on the new Cisco

Pix certification exam, making this book the perfect study guide in addition to professional reference Umer Khan's first book "Cisco Security Specialist's Guide to PIX Firewall" has been the #1 market leading Cisco Pix book since it was published in 2002

Your easy-to-follow step-by-step guide to configuring a Cisco router from the ground up The Accidental Administrator: Cisco Router Step-by-Step Configuration Guide is packed with more than 30 easy-to-follow interactive exercises, loads of screen captures, and lots of step-by-step examples to help you build a working router from scratch. Easily the most straightforward approach to learning how to configure a Cisco router, this book is filled with practical tips and secrets learned from years of Don's teaching and consulting on Cisco network devices. As a bonus, you won't waste your time on boring theory. All the essentials are covered in chapters on installing, backups and restores, and TCP/IP. You'll learn the nitty-gritty on subnetting, remote administration, routing protocols, static routing, access-control lists, site-to-site VPNs, network address translation (NAT), DHCP, password recovery, and security. There's even an entire chapter on the new Internet Protocol version 6 (IPv6). Here's just some of what you'll find: How to configure and manage access lists How to set up a site-to-site VPN How to implement IPv6 All the information is presented in a straightforward style that you can understand and use right away. With The Accidental Administrator: Cisco Router Step-by-Step Configuration Guide you'll be able to sit down with your routers and build a working configuration in a matter of minutes. Of course, some of the more advanced configs may take a little longer, but even so, you'll be able to "get 'er done" in a minimal amount of time In addition, there are supporting videos and a supporting webpage to provide even more help and updated information.

A systematic guide to the technologies, standards, protocols, and means used for the transparent security of information interaction in computer networks, this resource enables an independent understanding of the various methods of providing computer and information security when using modern network technology. The basic features of both Web technologies and the distributed information processing technologies connected with them that are based on mobile programs are described, as are the network technologies that influence security. Also covered are the methods of attacking computer networks and practical guidelines for protecting a virtual network.

A systems analysis approach to enterprise network design Master techniques for checking the health of an existing network to develop a baseline for measuring performance of a new network design Explore solutions for meeting QoS requirements, including ATM traffic management, IETF controlled-load and guaranteed services, IP multicast, and advanced switching, queuing, and routing algorithms Develop network designs that provide the high bandwidth and low delay required for real-time applications such as multimedia, distance learning, and videoconferencing Identify the advantages and disadvantages of various switching and routing protocols, including transparent bridging, Inter-Switch Link (ISL), IEEE 802.1Q, IGRP, EIGRP, OSPF, and BGP4 Effectively incorporate new technologies into enterprise network designs, including VPNs, wireless networking, and IP Telephony Top-Down Network Design, Second Edition, is a practical and comprehensive guide to designing enterprise networks that are reliable, secure, and manageable. Using illustrations and real-world examples, it teaches a systematic method for network design that can be applied to campus LANs, remote-access networks, WAN links, and large-scale internetworks. You will learn to analyze business and technical requirements, examine traffic flow and QoS requirements, and select protocols and technologies based on performance goals. You will also develop an understanding of network performance factors such as network utilization, throughput, accuracy, efficiency, delay, and jitter. Several charts and job aids will help you apply a top-down approach to network design. This Second Edition has been revised to include new and updated material on wireless networks, virtual private networks (VPNs), network security, network redundancy, modularity in network designs, dynamic addressing for IPv4 and IPv6, new network design and management tools, Ethernet scalability options (including 10-Gbps Ethernet, Metro Ethernet, and Long-Reach Ethernet), and networks that carry voice and data traffic. Top-Down Network Design, Second Edition, has a companion website at <http://www.topdownbook.com>, which includes updates to the book, links to white papers, and supplemental information about design resources. This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

Cisco® ASA All-in-One Next-Generation Firewall, IPS, and VPN Services, Third Edition Identify, mitigate, and respond to today's highly-sophisticated network attacks. Today, network attackers are far more sophisticated, relentless, and dangerous. In response, Cisco ASA: All-in-One Next-Generation Firewall, IPS, and VPN Services has been fully updated to cover the newest techniques and Cisco technologies for maximizing end-to-end security in your environment. Three leading Cisco security experts guide you through every step of creating a complete security plan with Cisco ASA, and then deploying, configuring, operating, and troubleshooting your solution. Fully updated for today's newest ASA releases, this edition adds new coverage of ASA 5500-X, ASA 5585-X, ASA Services Module, ASA next-generation firewall services, EtherChannel, Global ACLs, clustering, IPv6 improvements, IKEv2, AnyConnect Secure Mobility VPN clients, and more. The authors explain significant recent licensing changes; introduce enhancements to ASA IPS; and walk you through configuring IPsec, SSL VPN, and NAT/PAT. You'll learn how to apply Cisco ASA adaptive identification and mitigation services to systematically strengthen security in network environments of all sizes and types. The authors present up-to-date sample configurations, proven design scenarios, and actual debugs- all designed to help you make the most of Cisco ASA in your rapidly evolving network. Jazib Frahim, CCIE® No. 5459 (Routing and Switching; Security), Principal Engineer in the Global Security Solutions team, guides top-tier Cisco customers in security-focused network design and implementation. He architects, develops, and launches new security services concepts. His books include Cisco SSL VPN Solutions and Cisco Network Admission Control, Volume II: NAC Deployment and Troubleshooting. Omar Santos, CISSP No. 463598, Cisco Product Security Incident Response Team (PSIRT) technical leader, leads and mentors engineers and incident managers in investigating and resolving vulnerabilities in Cisco products and protecting Cisco customers. Through 18 years in IT and cybersecurity, he has designed, implemented, and supported numerous secure networks for Fortune® 500 companies and the U.S. government. He is also the author of several other books and numerous whitepapers and articles. Andrew Ossipov, CCIE® No. 18483 and CISSP No. 344324, is a Cisco Technical Marketing Engineer focused on firewalls, intrusion prevention, and data center security. Drawing on more than 16 years in networking, he works to solve complex customer technical problems, architect new features and products, and define future directions for Cisco's product portfolio. He holds several pending patents. Understand, install, configure, license, maintain, and troubleshoot the newest ASA devices Efficiently implement Authentication, Authorization, and Accounting (AAA) services Control and provision network access with packet filtering, context-aware Cisco ASA next-generation firewall services, and new NAT/PAT concepts Configure IP routing, application inspection, and QoS Create firewall contexts with unique configurations, interfaces, policies, routing tables, and administration Enable integrated protection against many types of malware and advanced persistent threats (APTs) via Cisco Cloud Web Security and Cisco Security Intelligence Operations (SIO) Implement high availability with failover and elastic scalability with clustering Deploy, troubleshoot, monitor, tune, and manage Intrusion Prevention System (IPS) features Implement site-to-site IPsec VPNs and all forms of remote-access VPNs (IPsec, clientless SSL, and client-based SSL) Configure and troubleshoot Public Key Infrastructure (PKI) Use IKEv2 to more effectively resist attacks against VPNs Leverage IPv6 support for IPS, packet inspection, transparent firewalls, and site-to-site IPsec VPNs SSL Remote Access VPNs An introduction to designing and configuring SSL virtual private networks Jazib Frahim, CCIE® No. 5459 Qiang Huang, CCIE No. 4937 Cisco® SSL VPN solutions (formerly known as Cisco WebVPN solutions) give you a flexible and secure way to extend networking resources to virtually any remote user with access to the Internet and a web browser. Remote access based on SSL VPN delivers secure access to network resources by establishing an encrypted tunnel across the Internet using a broadband (cable or DSL) or ISP dialup connection. SSL Remote Access VPNs provides you with a basic working knowledge of SSL virtual private networks on Cisco SSL

VPN-capable devices. Design guidance is provided to assist you in implementing SSL VPN in existing network infrastructures. This includes examining existing hardware and software to determine whether they are SSL VPN capable, providing design recommendations, and guiding you on setting up the Cisco SSL VPN devices. Common deployment scenarios are covered to assist you in deploying an SSL VPN in your network. SSL Remote Access VPNs gives you everything you need to know to understand, design, install, configure, and troubleshoot all the components that make up an effective, secure SSL VPN solution. Jazib Frahim, CCIE® No. 5459, is currently working as a technical leader in the Worldwide Security Services Practice of the Cisco Advanced Services for Network Security. He is responsible for guiding customers in the design and implementation of their networks, with a focus on network security. He holds two CCIEs, one in routing and switching and the other in security. Qiang Huang, CCIE No. 4937, is a product manager in the Cisco Campus Switch System Technology Group, focusing on driving the security and intelligent services roadmap for market-leading modular Ethernet switching platforms. During his time at Cisco, Qiang has played an important role in a number of technology groups, including the Cisco TAC security and VPN team, where he was responsible for trouble-shooting complicated customer deployments in security and VPN solutions. Qiang has extensive knowledge of security and VPN technologies and experience in real-life customer deployments. Qiang holds CCIE certifications in routing and switching, security, and ISP Dial. Understand remote access VPN technologies, such as Point-to-Point Tunneling Protocol (PPTP), Internet Protocol Security (IPsec), Layer 2 Forwarding (L2F), Layer 2 Tunneling (L2TP) over IPsec, and SSL VPN Learn about the building blocks of SSL VPN, including cryptographic algorithms and SSL and Transport Layer Security (TLS) Evaluate common design best practices for planning and designing an SSL VPN solution Gain insight into SSL VPN functionality on Cisco Adaptive Security Appliance (ASA) and Cisco IOS® routers Install and configure SSL VPNs on Cisco ASA and Cisco IOS routers Manage your SSL VPN deployment using Cisco Security Manager 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: SSL VPNs

Annotation Understand the tools, commands, and methodologies that enable reliable performance for remote access services in an enterprise environment. Expert advice on supporting remote access networks with detailed descriptions of Cisco? troubleshooting tools. Structured troubleshooting methodologies for enterprise remote access technologies including Dial, ISDN, Frame Relay, and VPNs. Examination of network symptoms, show commands, line-by-line explanations of debug output, and overviews of remote access management. Troubleshooting Remote Access Enterprise Networks helps you understand underlying technologies and gain insight into the challenges, issues, and best practices for supporting remote access networks. Covering fundamental concepts, design issues, provisioning, DSL and Cable connectivity options, central office operations, authentication techniques, and troubleshooting, this book serves as a comprehensive tool to resolving remote access issues. In-depth analysis of essential remote access technologies provides greater insight into Dial, ISDN, Frame Relay, and VPNs. With a focus specifically on the more popular enterprise applications of these technologies, each major section discusses troubleshooting methodology and scenarios. The methodology walks readers through the process of identifying, isolating, and correcting common failures. This structured approach helps limit the inclination to attack network failures in a more random fashion, which is not nearly as efficient. Explanations of typical symptoms, problems, show commands, and debug information are also extensive. Plamen Nedeltchev is a Technical Solutions Consultant in the Remote Access Services group at Cisco Systems?. He is the author of over 30 publications and the recipient of numerous awards for his technical and troubleshooting skills. Plamen holds a Ph.D. in Computer Science from the Bulgarian Academy of Science and a Master's degree in Computer Science from Saint Petersburg Electrotechnical University.

This is the eBook version of the printed book. If the print book includes a CD-ROM, this content is not included within the eBook version. For organizations of all sizes, the Cisco ASA product family offers powerful new tools for maximizing network security. Cisco ASA: All-in-One Firewall, IPS, Anti-X and VPN Adaptive Security Appliance, Second Edition, is Cisco's authoritative practitioner's guide to planning, deploying, managing, and troubleshooting security with Cisco ASA. Written by two leading Cisco security experts, this book presents each Cisco ASA solution in depth, offering comprehensive sample configurations, proven troubleshooting methodologies, and debugging examples. Readers will learn about the Cisco ASA Firewall solution and capabilities; secure configuration and troubleshooting of site-to-site and remote access VPNs; Intrusion Prevention System features built into Cisco ASA's Advanced Inspection and Prevention Security Services Module (AIP-SSM); and Anti-X features in the ASA Content Security and Control Security Services Module (CSC-SSM). This new edition has been updated with detailed information on the latest ASA models and features. Everything network professionals need to know to identify, mitigate, and respond to network attacks with Cisco ASA Includes detailed configuration examples, with screenshots and command line references Covers the ASA 8.2 release Presents complete troubleshooting methodologies and architectural references

"Dennis Fowler provides an insightful view to both the business benefits and technical requirements to VPNs. His examples of other customers' experiences with VPNs breathe life into the discussion." From the Foreword by Susan Scheer Aoko, Cisco systems, Inc. Network-dependent companies are excited by the benefits promised by the virtual private network, including lower costs, greater flexibility, and improvements in connectivity. But they also have questions: What benefits are real? How can they be measured? What are the expenses and the dangers? Virtual Private Networks: Making the Right Connection is an intelligent introduction written especially for business and IT professionals who want a realistic assessment of what a VPN can provide for their organizations. Covering advantages and risks, this book expands your understanding of what you can do with a VPN, while detailing all that implementing it will demand of you. With its help, you'll find your way through VPN hype to the answers you need to make sound decisions. Features Thoroughly explains VPN concepts and technologies, and examines the potential of VPNs as intranets, extranets, and remote access solutions. Covers essential VPN topics like tunneling, encapsulation, encryption, security, and protocols. Provides detailed points of comparison between typical VPN costs and the costs of maintaining traditional WANs. Offers frank consideration of the hidden costs and risks sometimes associated with VPNs, helping you decide if a VPN is right for you. Lists and assesses the software and hardware products you may need to implement a VPN. Discusses both Internet-based VPNs and VPN services offered by providers of "private" ATM and frame relay networks, detailing the

pros and cons of each.

Contains papers which reflect the breadth and depth of the field of biomedical and health informatics, covering topics such as; health information systems, education, standards, consumer health and human factors, emerging technologies, sustainability, organizational and economic issues, genomics, and image and signal processing.

Cisco's authorized foundation learning self-study guide for the latest CCDP® ARCH exam • •Developed in conjunction with the Cisco certification team, creators of the newest CCDP ARCH exams and courses. •Fully covers Cisco network design to deliver fundamental infrastructure services. •Contains new coverage of network virtualization, voice, video, QoS, WAN services, and more. •Contains many self-assessment review questions, and a running case study. This is Cisco's authorized, self-paced, foundation learning tool for the latest version of the Cisco ARCH exam, required for the current CCDP certification. It brings together practical knowledge of the latest developments in network design and technologies, including network infrastructure, intelligent network services, and converged network solutions. Readers will gain a thorough understanding of the issues and considerations associated with designing networks that deliver fundamental infrastructure services. As an Authorized Self-Study Guide, this book fully reflects the content of the newest version of the Cisco ARCH course. Each chapter ends with questions designed to help readers assess their understanding as they prepare for the exam. An ongoing case study illustrates and reinforces concepts presented throughout the book. Coverage also includes: network design in the context of Cisco's Preparing, Planning, Designing, Implementing, Operating, and Optimizing (PPDIOO) framework; enterprise campus network and data center design; e-commerce design; SAN design; security services design; IPsec and SSL VPN design; IP multicast design; and network management.

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