Ipsec Securing Vpns

Building VPNsJuniper SRX SeriesIKEv2 IPsec Virtual Private NetworksVPNsIPSec Virtual Private Network FundamentalsA Technical Guide to IPSec Virtual Private NetworksThe Complete Cisco VPN Configuration GuideA Technical Guide to IPSec Virtual Private NetworksIPSecBuilding Linux Virtual Private Networks (VPNs)Juniper SRX SeriesIPSecTroubleshooting Virtual Private NetworksJuniper(r) Networks Secure Access SSL VPN Configuration GuideRouter Security StrategiesGuidelines on Firewalls and Firewall PolicyNetwork Security AssessmentMastering OpenVPNJunos SecurityIPSec Virtual Private Network FundamentalsCisco Secure Virtual Private NetworksSecuring Cloud and MobilityLucifer Christ EncountersCCIE Routing and Switching v5.1 FoundationsThe InfoSec HandbookImplementing IPsecCCSP Cisco Secure VPN Exam Certification GuideNetwork Security ArchitecturesIPSecCCNA Security 210-260 Certification GuideIPSec VPN DesignNetwork Security, Firewalls, and VPNsVPNs IllustratedComparing, Designing, and Deploying VPNsVirtual Private NetworksManaging Cisco Network SecurityMPLS VPN SecuritySsl VpnGuide to Ipsec VpnsImplementing DirectAccess with Windows Server 2016

Building VPNs

A comprehensive overview of SSL VPN technologies and design strategies.

Juniper SRX Series

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.

IKEv2 IPsec Virtual Private Networks

IPSec, Second Edition is the most authoritative, comprehensive, accessible, and up-to-date guide to IPSec technology. Two leading authorities cover all facets of IPSec architecture, implementation, and deployment; review important technical advances since IPSec was first standardized; and present new case studies demonstrating end-to-end IPSec security. New coverage also includes in-depth guidance on policies, updates on IPSec enhancements for large-scale enterprise environments, and much more.

VPNs

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-tounderstand, 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

IPSec Virtual Private Network Fundamentals

This updated report provides an overview of firewall technology, and helps organizations plan for and implement effective firewalls. It explains the technical features of firewalls, the types of firewalls that are available for implementation by organizations, and their security capabilities. Organizations are advised on the placement of firewalls within the network architecture, and on the selection, implementation, testing, and management of firewalls. Other issues covered in detail are the development of firewall policies, and recommendations on the types of network traffic that should be prohibited. The appendices contain helpful supporting material, including a glossary and lists of acronyms and abreviations; and listings of in-print and online resources. Illus.

A Technical Guide to IPSec Virtual Private Networks

An in-depth knowledge of how to configure Cisco IP network security is a MUST for anyone working in today's internetworked world "There's no question

that attacks on enterprise networks are increasing in frequency and sophistication"-Mike Fuhrman, Cisco Systems Manager, Security Consulting Managing Cisco Network Security, Second Edition offers updated and revised information covering many of Cisco's security products that provide protection from threats, detection of network security incidents, measurement of vulnerability and policy compliance and management of security policy across an extended organization. These are the tools that network administrators have to mount defenses against threats. Chapters also cover the improved functionality and ease of the Cisco Secure Policy Manger software used by thousands of small-to-midsized businesses and a special section on the Cisco Aironet Wireless Security Solutions. Security from a real-world perspective Key coverage of the new technologies offered by the Cisco including: 500 series of Cisco PIX Firewall, Cisco Intrusion Detection System, and the Cisco Secure Scanner Revised edition of a text popular with CCIP (Cisco Certified Internetwork Professional) students Expanded to include separate chapters on each of the security products offered by Cisco Systems

The Complete Cisco VPN Configuration Guide

An introduction to designing and configuring Cisco IPsec VPNs Understand the basics of the IPsec protocol and learn implementation best practices Study up-to-date IPsec design, incorporating current Cisco innovations in the security and VPN

marketplace Learn how to avoid common pitfalls related to IPsec deployment Reinforce theory with case studies, configuration examples showing how IPsec maps to real-world solutions IPsec Virtual Private Network Fundamentals provides a basic working knowledge of IPsec on various Cisco routing and switching platforms. It provides the foundation necessary to understand the different components of Cisco IPsec implementation and how it can be successfully implemented in a variety of network topologies and markets (service provider, enterprise, financial, government). This book views IPsec as an emerging requirement in most major vertical markets, explaining the need for increased information authentication, confidentiality, and non-repudiation for secure transmission of confidential data. The book is written using a layered approach, starting with basic explanations of why IPsec was developed and the types of organizations relying on IPsec to secure data transmissions. It then outlines the basic IPsec/ISAKMP fundamentals that were developed to meet demand for secure data transmission. The book covers the design and implementation of IPsec VPN architectures using an array of Cisco products, starting with basic concepts and proceeding to more advanced topics including high availability solutions and public key infrastructure (PKI). Sample topology diagrams and configuration examples are provided in each chapter to reinforce the fundamentals expressed in text and to assist readers in translating concepts into practical deployment scenarios. Additionally, comprehensive case studies are incorporated throughout to map topics to real-world solutions.

A Technical Guide to IPSec Virtual Private Networks

& Learn the troubleshooting techniques that every IT professional running a Virtual Private Network (VPN) must master & & Experience real-world solutions through practice scenarios in each chapter & & An essential workplace reference guide for every VPN management site

IPSec

An introduction to designing and configuring Cisco IPsec VPNs Understand the basics of the IPsec protocol and learn implementation best practices Study up-to-date IPsec design, incorporating current Cisco innovations in the security and VPN marketplace Learn how to avoid common pitfalls related to IPsec deployment Reinforce theory with case studies, configuration examples showing how IPsec maps to real-world solutions IPsec Virtual Private Network Fundamentals provides a basic working knowledge of IPsec on various Cisco routing and switching platforms. It provides the foundation necessary to understand the different components of Cisco IPsec implementation and how it can be successfully implemented in a variety of network topologies and markets (service provider, enterprise, financial, government). This book views IPsec as an emerging requirement in most major vertical markets, explaining the need for increased information authentication, confidentiality, and non-repudiation for secure transmission of confidential data. The book

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Building Linux Virtual Private Networks (VPNs)

Building Linux Virtual Private Networks (VPNs) covers the most popular VPN technologies available for the Linux platform. In the early chapters the theory behind VPNs is discussed, including needs and uses. Common network and host configurations are also covered. Subsequent chapters drill down into the implementation and configuration of specific software packages. Specific, detailed instructions are included as well as troubleshooting information. This book will be an indispensable resource for anyone who wants to implement a Linux-based VPN. This book will meet the needs of anyone, from the Linux user to the

experienced administrator to the security professional. --Oleg Kolesnikov

Juniper SRX Series

This is a biography of the author's encounters with the Super Natural.

IPSec

The definitive guide to understanding MPLS security and implementing and operating secure MPLS networks.

Troubleshooting Virtual Private Networks

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

Juniper(r) Networks Secure Access SSL VPN Configuration Guide

This complete field guide, authorized by Juniper Networks, is the perfect hands-on reference for deploying, configuring, and operating Juniper's SRX

Series networking device. Authors Brad Woodberg and Rob Cameron provide field-tested best practices for getting the most out of SRX deployments, based on their extensive field experience. While their earlier book, Junos Security, covered the SRX platform, this book focuses on the SRX Series devices themselves. You'll learn how to use SRX gateways to address an array of network requirements—including IP routing, intrusion detection, attack mitigation, unified threat management, and WAN acceleration. Along with case studies and troubleshooting tips, each chapter provides study questions and lots of useful illustrations. Explore SRX components, platforms, and various deployment scenarios Learn best practices for configuring SRX's core networking features Leverage SRX system services to attain the best operational state Deploy SRX in transparent mode to act as a Layer 2 bridge Configure, troubleshoot, and deploy SRX in a highly available manner Design and configure an effective security policy in your network Implement and configure network address translation (NAT) types Provide security against deep threats with AppSecure, intrusion protection services, and unified threat management tools

Router Security Strategies

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Guidelines on Firewalls and Firewall Policy

A hands-on guide for building and managing Virtual Private Networks (VPN). It covers VPN architecture, tunnelling, IPsec, authentication, public key infrastructure, and more.

Network Security Assessment

Written in conjunction with RSA Security - the most

trusted name in e-security - this book gives a presentation of IPSec components, implementation, and VPN interoperability. It is a part of the RSA Press series.

Mastering OpenVPN

What is IPSec? What's a VPN? Why do the need each other? Virtual Private Network (VPN) has become one of the most recognized terms in our industry, yet there continuously seems to be different impressions of what VPNs really are and can become. A Technical Guide to IPSec Virtual Private Networks provides a single point of information that represents hundreds or resources and years of experience with IPSec VPN solutions. It cuts through the complexity surrounding IPSec and the idiosyncrasies of design, implementation, operations, and security. Starting with a primer on the IP protocol suite, the book travels layer by layer through the protocols and the technologies that make VPNs possible. It includes security theory, cryptography, RAS, authentication, IKE, IPSec, encapsulation, keys, and policies. After explaining the technologies and their interrelationships, the book provides sections on implementation and product evaluation. A Technical Guide to IPSec Virtual Private Networks arms information security, network, and system engineers and administrators with the knowledge and the methodologies to design and deploy VPNs in the real world for real companies.

Junos Security

Although virtualization is a widely accepted technology, there are few books dedicated to virtualization and security. Filling this need, Securing Cloud and Mobility: A Practitioner's Guide explains how to secure the multifaceted layers of private and public cloud deployments as well as mobility infrastructures. With comprehensive coverage that inc

IPSec Virtual Private Network Fundamentals

CCIE-level Cisco routing and switching guide for every CCNP Preparing for the CCIE Routing and Switching lab exam typically involves deep and lengthy study. But if you already possess the Cisco CCNP Routing and Switching certification, you already know much of what you'll need to succeed on CCIE's labs. This book will help you quickly bridge your remaining knowledge gaps and make the most of everything you already know. CCIE Routing and Switching v5.1 Foundations addresses every segment of the CCIE R&S Version 5 blueprint, helping you focus your study where it will do the most good: intense hands-on practice to deepen your current knowledge and thorough explanations of theoretical topics you haven't yet encountered. Based on the author's industry-recognized CCIE prep classes, it includes 40+ detailed labs for real gear and platform emulators; structured illustrations of protocol and feature operation; and topic-specific labs to drive the theory home. It includes a full lab walkthrough of a complex configuration reflective of the actual CCIE–ensuring that you thoroughly understand the technologies and

interactions you're reading about. Discover the physical topology for any network deployment Master Spanning Tree Protocol (STP) foundations and advanced features Deploy and optimize PPP and use its full set of capabilities Implement Dynamic Multipoint VPNs (DMVPNs) from start to finish Use IP Prefix lists in prefix filtration, packet filtering, and other applications Handle any RIPv2 deployment scenario n Implement EIGRP, including classical and named operation modes and interoperation Use advanced OSPF techniques, including route filtration, LSA operation, stub configurations, and update filtering Understand what happens when you perform redistribution, and manage problematic scenarios Manage complex BGP capabilities, including Adjacency State Machine Operate IPv6 in complex network environments, including DMVPN Focus on QoS mechanisms that CCIE still covers, including traffic marking, classification, policing, and shaping Deploy IPsec VPN solutions including GRE/IPSec tunnel mode, multi-site VPN technologies, and their encryption Implement multicasting in environments requiring end-to-end IPv4 and IPv6 transport Address operational and deployment issues involving MPLS VPNv4 tunnels

Cisco Secure Virtual Private Networks

Network Security Fire walls, and VPNs provides a unique, in-depth look at the major business challenges and threats that are introduced when an organization's network is connected to the public Internet. Written by an industry expert, this book

provides a comprehensive explanation of network security basics, including how hackers access online networks and the use of Firewalls and VPNs to provide security countermeasures. Using examples and exercises, this book incorporates hands-on activities to prepare the reader to disarm threats and prepare for emerging technologies and future attacks. Key Features -Introduces the basics of network securityùexploring the details of firewall security and how VPNs operate -Illustrates how to plan proper network security to combat hackers and outside threats -Discusses firewall configuration and deployment and managing firewall security -Identifies how to secure local and Internet communications with a VPN About The Series The Jones & Bartlett Learning: Information Systems Security & Assurance Series delivers fundamental IT security principles packed with real-world applications and examples for IT Security, Cyber-Security, Information Assurance, and Information Systems Security programs. Authored by Certified Information Systems Security Professionals (CISSPs), and reviewed by leading technical experts in the field, these books are current, forward-thinking resources that enable readers to solve the cyber-security challenges of today and tomorrow.

Securing Cloud and Mobility

IPSec, Second Edition is the most authoritative, comprehensive, accessible, and up-to-date guide to IPSec technology. Two leading authorities cover all facets of IPSec architecture, implementation, and deployment; review important technical advances

since IPSec was first standardized; and present new case studies demonstrating end-to-end IPSec security. New coverage also includes in-depth guidance on policies, updates on IPSec enhancements for large-scale enterprise environments, and much more.

Lucifer Christ Encounters

Juniper Networks Secure Access SSL VPN appliances provide a complete range of remote access appliances for the smallest companies up to the largest service providers. As a system administrator or security professional, this comprehensive configuration guide will allow you to configure these appliances to allow remote and mobile access for employees. If you manage and secure a larger enterprise, this book will help you to provide remote and/or extranet access, for employees, partners, and customers from a single platform. Complete coverage of the Juniper Networks Secure Access SSL VPN line including the 700, 2000, 4000, 6000, and 6000 SP. Learn to scale your appliances to meet the demands of remote workers and offices. Use the NEW coordinated threat control with Juniper Networks IDP to manage the security of your entire enterprise.

CCIE Routing and Switching v5.1 Foundations

Become a Cisco security specialist by developing your skills in network security and explore advanced security technologies Key Features Enhance your skills in network security by learning about Cisco's

device configuration and installation Unlock the practical aspects of CCNA security to secure your devices Explore tips and tricks to help you achieve the CCNA Security 210-260 Certification Book Description With CCNA Security certification, a network professional can demonstrate the skills required to develop security infrastructure, recognize threats and vulnerabilities to networks, and mitigate security threats. The CCNA Security 210-260 Certification Guide will help you grasp the fundamentals of network security and prepare you for the Cisco CCNA Security Certification exam. You'll begin by getting a grip on the fundamentals of network security and exploring the different tools available. Then, you'll see how to securely manage your network devices by implementing the AAA framework and configuring different management plane protocols. Next, you'll learn about security on the data link layer by implementing various security toolkits. You'll be introduced to various firewall technologies and will understand how to configure a zone-based firewall on a Cisco IOS device. You'll configure a site-to-site VPN on a Cisco device and get familiar with different types of VPNs and configurations. Finally, you'll delve into the concepts of IPS and endpoint security to secure your organization's network infrastructure. By the end of this book, you'll be ready to take the CCNA Security Exam (210-260). What you will learn Grasp the fundamentals of network security Configure routing protocols to secure network devices Mitigate different styles of security attacks using Cisco devices Explore the different types of firewall technologies Discover the Cisco ASA functionality and gain insights into

some advanced ASA configurations Implement IPS on a Cisco device and understand the concept of endpoint security Who this book is for CCNA Security 210-260 Certification Guide can help you become a network security engineer, a cyber security professional, or a security administrator. You should have valid CCENT or CCNA Routing and Switching certification before taking your CCNA Security exam.

The InfoSec Handbook

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

Implementing IPsec

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

CCSP Cisco Secure VPN Exam Certification Guide

Virtual private networks (VPNs) based on the Internet instead of the traditional leased lines offer organizations of all sizes the promise of a low-cost, secure electronic network. However, using the Internet to carry sensitive information can present serious privacy and security problems. By explaining how VPNs actually work, networking expert Jon Snader shows software engineers and network administrators how to use tunneling, authentication, and encryption to create safe, effective VPNs for any environment. Using an example-driven approach, VPNs Illustrated explores how tunnels and VPNs function by observing their behavior "on the wire." By learning to read and interpret various network traces, such as those produced by tcpdump, readers will be able to better understand and troubleshoot VPN and network behavior. Specific topics covered include: Block and stream symmetric ciphers, such as AES and RC4; and asymmetric ciphers, such as RSA and

ElGamal Message authentication codes, including HMACs Tunneling technologies based on gtunnel SSL protocol for building network-to-network VPNs SSH protocols as drop-in replacements for telnet, ftp, and the BSD r-commands Lightweight VPNs, including VTun, CIPE, tinc, and OpenVPN IPsec, including its Authentication Header (AH) protocol, Encapsulating Security Payload (ESP), and IKE (the key management protocol) Packed with details, the text can be used as a handbook describing the functions of the protocols and the message formats that they use. Source code is available for download, and an appendix covers publicly available software that can be used to build tunnels and analyze traffic flow. VPNs Illustrated gives you the knowledge of tunneling and VPN technology you need to understand existing VPN implementations and successfully create your own.

Network Security Architectures

This publication seeks to assist organizations in mitigating the risks associated with the transmission of sensitive information across networks by providing practical guidance on implementing security services based on Internet Protocol Security (IPsec).

IPSec

Learn how to design, plan, implement, and support a secure remote access solution using DirectAccess in Windows Server 2016. Remote Access has been included in the Windows operating system for many years. With each new operating system release, new

features and capabilities have been included to allow network engineers and security administrators to provide remote access in a secure and cost-effective manner. DirectAccess in Windows Server 2016 provides seamless and transparent, always on remote network connectivity for managed Windows devices. DirectAccess is built on commonly deployed Windows platform technologies and is designed to streamline and simplify the remote access experience for end users. In addition, DirectAccess connectivity is bidirectional, allowing administrators to more effectively manage and secure their field-based assets. Implementing DirectAccess with Windows Server 2016 provides a high-level overview of how DirectAccess works. The vision and evolution of DirectAccess are outlined and business cases and market drivers are explained. DirectAccess is evaluated against traditional VPN and this book describes the Windows platform technologies that underpin this solution. In addition, this book: Explains how the technology works and the specific IT pain points that it addresses Includes detailed, prescriptive guidance for those tasked with implementing DirectAccess using Windows Server 2016 Addresses real-world deployment scenarios for small and large organizations Contains valuable tips, tricks, and implementation best practices for security and performance"/li> What you'll learn A high-level understanding of the various remote access technologies included in Windows Server 2016. Common uses cases for remote access, and how best to deploy them in a secure, stable, reliable, and highly available manner. Valuable insight in to design best practices and learn how to implement DirectAccess

and VPN with Windows Server 2016 according to deployment best practices. Who This Book Is For IT administrators, network, and security administrators and engineers, systems management professionals, compliance auditors, and IT executive management (CIO, CISO) are the target audience for this title.

CCNA Security 210-260 Certification Guide

EASY-TO-FOLLOW EXAMPLES FOR SECURE, VERSATILE, COST-CUTTING, VALUE-ADDED VPNs With the security enhancements, flexibility, and market advantages now available with IPSec and MPLS, building mission-critical VPNs using these technologies has become a top agenda for many networking professionals. LEVERAGE THE BENEFITS OF IPSec AND MPLS Assembling a fully functional IPSec or MPLS VPN isn't easy. With so little information available it can be like trying to build a bicycle when you have all the components, but no idea what the final product should look like. Only Building VPNs shows, in a clear, step-by-step fashion, how to build VPNs from scratch with IPSec and MPLS. Building VPNs: With IPSec and MPLS gives you: * From-the-ground-up directions for VPN construction * Step-by-step implementation of IPSec for secure, inexpensive, transmission of sensitive information across the public Internet * Easy-to-follow, diagrammed directions for deploying MPLS VPNs to provide value-added managed services * Clear instructions for using IPSec and MPLS in the enterprise and service-provider networking environments * Fully

working solutions for both basic and advanced VPN issues * Examples that clarify every important step in VPN design, configuration, implementation, and deployment THE BOOK TO CHOOSE FOR VPN BUILDS

IPSec VPN Design

What is IPSec? What's a VPN? Why do the need each other? Virtual Private Network (VPN) has become one of the most recognized terms in our industry, yet there continuously seems to be different impressions of what VPNs really are and can become. A Technical Guide to IPSec Virtual Private Networks provides a single point of information that represents hundreds or resources and years of experience with IPSec VPN solutions. It cuts through the complexity surrounding IPSec and the idiosyncrasies of design, implementation, operations, and security. Starting with a primer on the IP protocol suite, the book travels layer by layer through the protocols and the technologies that make VPNs possible. It includes security theory, cryptography, RAS, authentication, IKE, IPSec, encapsulation, keys, and policies. After explaining the technologies and their interrelationships, the book provides sections on implementation and product evaluation. A Technical Guide to IPSec Virtual Private Networks arms information security, network, and system engineers and administrators with the knowledge and the methodologies to design and deploy VPNs in the real world for real companies.

Network Security, Firewalls, and VPNs

There are hundreds--if not thousands--of techniques used to compromise both Windows and Unix-based systems. Malicious code and new exploit scripts are released on a daily basis, and each evolution becomes more and more sophisticated. Keeping up with the myriad of systems used by hackers in the wild is a formidable task, and scrambling to patch each potential vulnerability or address each new attack one-by-one is a bit like emptying the Atlantic with paper cup.If you're a network administrator, the pressure is on you to defend your systems from attack. But short of devoting your life to becoming a security expert, what can you do to ensure the safety of your mission critical systems? Where do you start?Using the steps laid out by professional security analysts and consultants to identify and assess risks, Network Security Assessment offers an efficient testing model that an administrator can adopt, refine, and reuse to create proactive defensive strategies to protect their systems from the threats that are out there, as well as those still being developed.This thorough and insightful guide covers offensive technologies by grouping and analyzing them at a higher level--from both an offensive and defensive standpoint--helping administrators design and deploy networks that are immune to offensive exploits, tools, and scripts. Network administrators who need to develop and implement a security assessment program will find everything they're looking for--a proven, expert-tested methodology on which to base their own comprehensive program--in this time-saving new book.

VPNs Illustrated

The InfoSec Handbook offers the reader an organized layout of information that is easily read and understood. Allowing beginners to enter the field and understand the key concepts and ideas, while still keeping the experienced readers updated on topics and concepts. It is intended mainly for beginners to the field of information security, written in a way that makes it easy for them to understand the detailed content of the book. The book offers a practical and simple view of the security practices while still offering somewhat technical and detailed information relating to security. It helps the reader build a strong foundation of information, allowing them to move forward from the book with a larger knowledge base. Security is a constantly growing concern that everyone must deal with. Whether it's an average computer user or a highly skilled computer user, they are always confronted with different security risks. These risks range in danger and should always be dealt with accordingly. Unfortunately, not everyone is aware of the dangers or how to prevent them and this is where most of the issues arise in information technology (IT). When computer users do not take security into account many issues can arise from that like system compromises or loss of data and information. This is an obvious issue that is present with all computer users. This book is intended to educate the average and experienced user of what kinds of different security practices and standards exist. It will also cover how to manage security software and updates in order to be as protected as

possible from all of the threats that they face.

Comparing, Designing, and Deploying VPNs

Router Security Strategies: Securing IP Network Traffic Planes provides a compre-hensive approach to understand and implement IP traffic plane separation and protection on IP routers. This book details the distinct traffic planes of IP networks and the advanced techniques necessary to operationally secure them. This includes the data, control, management, and services planes that provide the infrastructure for IP networking. The first section provides a brief overview of the essential components of the Internet Protocol and IP networking. At the end of this section, you will understand the fundamental principles of defense in depth and breadth security as applied to IP traffic planes. Techniques to secure the IP data plane, IP control plane, IP management plane, and IP services plane are covered in detail in the second section. The final section provides case studies from both the enterprise network and the service provider network perspectives. In this way, the individual IP traffic plane security techniques reviewed in the second section of the book are brought together to help you create an integrated, comprehensive defense in depth and breadth security architecture. "Understanding and securing IP traffic planes are critical to the overall security posture of the IP infrastructure. The techniques detailed in this book provide protection and instrumentation enabling operators to understand and defend against attacks. As the vulnerability

economy continues to mature, it is critical for both vendors and network providers to collaboratively deliver these protections to the IP infrastructure." –Russell Smoak, Director, Technical Services, Security Intelligence Engineering, Cisco Gregg Schudel, CCIE® No. 9591, joined Cisco in 2000 as a consulting system engineer supporting the U.S. service provider organization. Gregg focuses on IP core network security architectures and technology for interexchange carriers and web services providers. David J. Smith, CCIE No. 1986, joined Cisco in 1995 and is a consulting system engineer supporting the service provider organization. David focuses on IP core and edge architectures including IP routing, MPLS technologies, QoS, infrastructure security, and network telemetry. Understand the operation of IP networks and routers Learn about the many threat models facing IP networks, Layer 2 Ethernet switching environments, and IPsec and MPLS VPN services Learn how to segment and protect each IP traffic plane by applying defense in depth and breadth principles Use security techniques such as ACLs, rate limiting, IP Options filtering, uRPF, QoS, RTBH, QPPB, and many others to protect the data plane of IP and switched Ethernet networks Secure the IP control plane with rACL, CoPP, GTSM, MD5, BGP and ICMP techniques and Layer 2 switched Ethernet-specific techniques Protect the IP management plane with password management, SNMP, SSH, NTP, AAA, as well as other VPN management, out-of-band management, and remote access management techniques Secure the IP services plane using recoloring, IP fragmentation control, MPLS label control, and other traffic classification and process control techniques

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.

Virtual Private Networks

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.

Managing Cisco Network Security

The definitive design and deployment guide for secure virtual private networks Learn about IPSec protocols and Cisco IOS IPSec packet processing Understand the differences between IPSec tunnel mode and transport mode Evaluate the IPSec features that improve VPN scalability and fault tolerance, such as dead peer detection and control plane keepalives Overcome the challenges of working with NAT and PMTUD Explore IPSec remote-access features, including extended authentication, mode-configuration, and digital certificates Examine the pros and cons of various IPSec connection models such as native IPSec, GRE, and remote access Apply fault tolerance methods to IPSec VPN designs Employ mechanisms to alleviate the configuration complexity of a large- scale IPSec VPN, including Tunnel End-Point Discovery (TED) and Dynamic Multipoint VPNs (DMVPN) Add services to IPSec VPNs, including voice and multicast Understand how network-based VPNs operate and how to integrate IPSec VPNs with MPLS VPNs Among the many functions that networking technologies permit is the ability for organizations to

easily and securely communicate with branch offices, mobile users, telecommuters, and business partners. Such connectivity is now vital to maintaining a competitive level of business productivity. Although several technologies exist that can enable interconnectivity among business sites, Internet-based virtual private networks (VPNs) have evolved as the most effective means to link corporate network resources to remote employees, offices, and mobile workers. VPNs provide productivity enhancements, efficient and convenient remote access to network resources, site-to-site connectivity, a high level of security, and tremendous cost savings. IPSec VPN Design is the first book to present a detailed examination of the design aspects of IPSec protocols that enable secure VPN communication. Divided into three parts, the book provides a solid understanding of design and architectural issues of large-scale, secure VPN solutions. Part I includes a comprehensive introduction to the general architecture of IPSec, including its protocols and Cisco IOS� IPSec implementation details. Part II examines IPSec VPN design principles covering hub-and-spoke, full-mesh, and fault-tolerant designs. This part of the book also covers dynamic configuration models used to simplify IPSec VPN designs. Part III addresses design issues in adding services to an IPSec VPN such as voice and multicast. This part of the book also shows you how to effectively integrate IPSec VPNs with MPLS VPNs. IPSec VPN Design provides you with the field-tested design and configuration advice to help you deploy an effective and secure VPN solution in any environment. 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.

MPLS VPN Security

Junos® Security is the complete and authorized introduction to the new Juniper Networks SRX hardware series. This book not only provides a practical, hands-on field guide to deploying, configuring, and operating SRX, it also serves as a reference to help you prepare for any of the Junos Security Certification examinations offered by Juniper Networks. Network administrators and security professionals will learn how to use SRX Junos services gateways to address an array of enterprise data network requirements -- including IP routing, intrusion detection, attack mitigation, unified threat management, and WAN acceleration. Junos Security is a clear and detailed roadmap to the SRX platform. The author's newer book, Juniper SRX Series, covers the SRX devices themselves. Get up to speed on Juniper's multi-function SRX platforms and SRX Junos software Explore case studies and troubleshooting tips from engineers with extensive SRX experience Become familiar with SRX security policy, Network Address Translation, and IPSec VPN configuration Learn about routing fundamentals and high availability with SRX platforms Discover what sets SRX apart from typical firewalls Understand the operating system that spans the entire Juniper Networks networking hardware portfolio Learn about

the more commonly deployed branch series SRX as well as the large Data Center SRX firewalls "I know these authors well. They are out there in the field applying the SRX's industry-leading network security to real world customers everyday. You could not learn from a more talented team of security engineers." --Mark Bauhaus, EVP and General Manager, Juniper Networks

Ssl Vpn

Expert guidance on designing secure networks Understand security best practices and how to take advantage of the networking gear you already have Review designs for campus, edge, and teleworker networks of varying sizes Learn design considerations for device hardening, Layer 2 and Layer 3 security issues, denial of service, IPsec VPNs, and network identity Understand security design considerations for common applications such as DNS, mail, and web Identify the key security roles and placement issues for network security elements such as firewalls, intrusion detection systems, VPN gateways, content filtering, as well as for traditional network infrastructure devices such as routers and switches Learn 10 critical steps to designing a security system for your network Examine secure network management designs that allow your management communications to be secure while still maintaining maximum utility Try your hand at security design with three included case studies Benefit from the experience of the principal architect of the original Cisco Systems SAFE Security Blueprint Written by the

principal architect of the original Cisco Systems SAFE Security Blueprint, Network Security Architectures is your comprehensive how-to guide to designing and implementing a secure network. Whether your background is security or networking, you can use this book to learn how to bridge the gap between a highly available, efficient network and one that strives to maximize security. The included secure network design techniques focus on making network and security technologies work together as a unified system rather than as isolated systems deployed in an ad-hoc way. Beginning where other security books leave off, Network Security Architectures shows you how the various technologies that make up a security system can be used together to improve your network's security. The technologies and best practices you'll find within are not restricted to a single vendor but broadly apply to virtually any network system. This book discusses the whys and hows of security, from threats and counter measures to how to set up your security policy to mesh with your network architecture. After learning detailed security best practices covering everything from Layer 2 security to e-commerce design, you'll see how to apply the best practices to your network and learn to design your own security system to incorporate the requirements of your security policy. You'll review detailed designs that deal with today's threats through applying defense-in-depth techniques and work through case studies to find out how to modify the designs to address the unique considerations found in your network. Whether you are a network or security engineer, Network Security Architectures will become your primary reference for designing and

building a secure network. 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.

Guide to Ipsec Vpns

How do you secure your IP network without destroying it? The IPsec protocols are the only viable standard for secure, network-layer transmission on IP, yet they can wreak havoc on critical applications and other enhanced network services. Interoperability problems between vendors, as well as limitations in the basic technology, can cause problems that range from annoying to disastrous. This book tells you how IPsec works (or doesn't work) with other technologies, describes how to select products that will meet your needs, and discusses legal issues critical to IPsec deployment. This hands-on guide will help you to: * Analyze how and why IPsec may break existing networks * Combine IPsec with other enhanced IP services and applications * Determine the causes of IPsec performance problems and protocol conflicts * Understand how existing laws and regulatory trends may impact your use of IPsec products * Understand the basic technological components of IPsec * Evaluate IPsec vendors and products Networking council Networking Council Books put technology into perspective for decision-makers who need an implementation strategy, a vendor and outsourcing strategy, and a product and design strategy. Series advisors are four of the most influential leaders of the

networking community: Lyman Chapin-Chief Scientist at BBN/GTE and founding trustee of the Internet Society Scott Bradner-Director of the Harvard University Network Device Test Lab, trustee of the Internet Society, and ISOC VP of Standards Vinton Cerf-Senior Vice President at MCI/WorldCom and current chair of the Internet Society Ed Kozel- Senior VP for Corporate Development at Cisco Systems and member of the Board of Directors Visit our Web site at: www.wiley.com/compbooks Visit the Networking Council web site at: www.wiley.com/networkingcouncil

Implementing DirectAccess with Windows Server 2016

Master building and integrating secure private networks using OpenVPN About This Book Discover how to configure and set up a secure OpenVPN Enhance user experience by using multiple authentication methods Delve into better reporting, monitoring, logging, and control with OpenVPN Who This Book Is For If you are familiar with TCP/IP networking and general system administration, then this book is ideal for you. Some knowledge and understanding of core elements and applications related to Virtual Private Networking is assumed. What You Will Learn Identify different VPN protocols (IPSec, PPTP, OpenVPN) Build your own PKI and manage certificates Deploy your VPN on various devices like PCs, mobile phones, tablets, and more Differentiate between the routed and bridged network Enhance your VPN with monitoring and logging

Authenticate against third-party databases like LDAP or the Unix password file Troubleshoot an OpenVPN setup that is not performing correctly In Detail Security on the internet is increasingly vital to both businesses and individuals. Encrypting network traffic using Virtual Private Networks is one method to enhance security. The internet, corporate, and "free internet" networks grow more hostile every day. OpenVPN, the most widely used open source VPN package, allows you to create a secure network across these systems, keeping your private data secure. The main advantage of using OpenVPN is its portability, which allows it to be embedded into several systems. This book is an advanced guide that will help you build secure Virtual Private Networks using OpenVPN. You will begin your journey with an exploration of OpenVPN, while discussing its modes of operation, its clients, its secret keys, and their format types. You will explore PKI: its setting up and working, PAM authentication, and MTU troubleshooting. Next, client-server mode is discussed, the most commonly used deployment model, and you will learn about the two modes of operation using "tun" and "tap" devices. The book then progresses to more advanced concepts, such as deployment scenarios in tun devices which will include integration with back-end authentication, and securing your OpenVPN server using iptables, scripting, plugins, and using OpenVPN on mobile devices and networks. Finally, you will discover the strengths and weaknesses of the current OpenVPN implementation, understand the future directions of OpenVPN, and delve into the troubleshooting techniques for OpenVPN. By the end of the book, you will be able to build secure private

networks across the internet and hostile networks with confidence. Style and approach An easy-to-follow yet comprehensive guide to building secure Virtual Private Networks using OpenVPN. A progressively complex VPN design is developed with the help of examples. More advanced topics are covered in each chapter, with subjects grouped according to their complexity, as well as their utility.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION