

Cisco Asa All In One Next Generation Firewall Ips And Vpn Services

A helpful guide on all things Cisco Do you wish that the complex topics of routers, switches, and networking could be presented in a simple, understandable presentation? With Cisco Networking All-in-One For Dummies, they are! This expansive reference is packed with all the information you need to learn to use Cisco routers and switches to develop and manage secure Cisco networks. This straightforward-by-fun guide offers expansive coverage of Cisco and breaks down intricate subjects such as networking, virtualization, and database technologies into easily digestible pieces. Drills down complex subjects concerning Cisco networking into easy-to-understand, straightforward coverage Shares best practices for utilizing Cisco switches and routers to implement, secure, and optimize Cisco networks Reviews Cisco networking solutions and products, securing Cisco networks, and optimizing Cisco networks Details how to design and implement Cisco networks Whether you're new to Cisco networking products and services or an experienced professional looking to refresh your knowledge about Cisco, this For Dummies guide provides you with the coverage, solutions, and best practices you need.

This book is a concise one-stop desk reference and synopsis of basic knowledge and skills for Cisco certification prep. For beginning and experienced network engineers tasked with building LAN, WAN, and data center connections, this book lays out clear directions for installing, configuring, and troubleshooting networks with Cisco devices. The full range of certification topics is covered, including all aspects of IOS, NX-OS, and ASA software. The emphasis throughout is on solving the real-world challenges engineers face in configuring network devices, rather than on exhaustive descriptions of hardware features. This practical desk companion doubles as a comprehensive overview of the basic knowledge and skills needed by CCENT, CCNA, and CCNP exam takers. It distills a comprehensive library of cheat sheets, lab configurations, and advanced commands that the authors assembled as senior network engineers for the benefit of junior engineers they train, mentor on the job, and prepare for Cisco certification exams. Prior familiarity with Cisco routing and switching is desirable but not necessary, as Chris Carthern, Dr. Will Wilson, Noel Rivera, and Richard Bedwell start their book with a review of the basics of configuring routers and switches. All the more advanced chapters have labs and exercises to reinforce the concepts learned. This book differentiates itself from other Cisco books on the market by approaching network security from a hacker's perspective. Not only does it provide network security recommendations but it teaches you how to use black-hat tools such as oclHashcat, Loki, Burp Suite, Scapy, Metasploit, and Kali to actually test the security concepts learned. Readers of Cisco Networks will learn How to configure Cisco switches, routers, and data center devices in typical corporate network architectures The skills and knowledge needed to pass Cisco CCENT, CCNA, and CCNP certification exams How to set up and configure at-home labs using virtual machines and lab exercises in the book to practice advanced Cisco commands How to implement networks of Cisco devices supporting WAN, LAN, and data center configurations How to implement secure network configurations and configure the Cisco ASA firewall How to use black-hat tools and network penetration techniques to test the security of your network

As a network administrator, auditor or architect, you know the importance of securing your network and finding security solutions you can implement quickly. This succinct book departs from other security literature by focusing exclusively on ways to secure Cisco routers, rather than the entire network. The rationale is simple: If the router protecting a network is exposed to hackers, then so is the network behind it. *Hardening Cisco Routers* is a reference for protecting the protectors. Included are the following topics: The importance of router security and where routers fit into an overall security plan Different router configurations for various versions of Cisco's IOS Standard ways to access a Cisco router and the security implications of each Password and privilege levels in Cisco routers Authentication, Authorization, and Accounting (AAA) control Router warning banner use (as recommended by the FBI) Unnecessary protocols and services commonly run on Cisco routers SNMP security Anti-spoofing Protocol security for RIP, OSPF, EIGRP, NTP, and BGP Logging violations Incident response Physical security Written by Thomas Akin, an experienced Certified Information Systems Security Professional (CISSP) and Certified Cisco Academic Instructor (CCAI), the book is well organized, emphasizing practicality and a hands-on approach. At the end of each chapter, Akin includes a Checklist that summarizes the hardening techniques discussed in the chapter. The Checklists help you double-check the configurations you have been instructed to make, and serve as quick references for future security procedures. Concise and to the point, *Hardening Cisco Routers* supplies you with all the tools necessary to turn a potential vulnerability into a strength. In an area that is otherwise poorly documented, this is the one book that will help you make your Cisco routers rock solid.

Cisco ASA for Accidental Administrators is a major update to the previous *Accidental Administrator ASA* book. This new edition is packed with 48 easy-to-follow hands-on exercises to help you build a working firewall configuration from scratch. Based on software version 9.x, it continues as the most straight-forward approach to learning how to configure the Cisco ASA Security Appliance, filled with practical tips and secrets learned from years of teaching and consulting on the ASA. There is no time wasted on boring theory. The essentials are covered in chapters on installing, backups and restores, remote administration, VPNs, DMZs, usernames, transparent mode, static NAT, port address translation, access lists, DHCP, password recovery, logon banners, AAA (authentication, authorization and accounting), filtering content and more. Inside this concise, step-by-step guide, you'll find: **How to backup and restore software images and configurations **How to configure different types of VPNs, including AAA authentication **The secrets to successfully building and implementing access-lists All this information is presented in a straight-forward style that you can understand and use right away. The idea is for you to be able to sit down with your ASA 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 it done" in a minimal amount of time!

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

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 Identify, mitigate, and respond to network attacks Understand the evolution of security technologies that make up the unified ASA device and how to install the ASA hardware Examine firewall solutions including network access control, IP routing, AAA, application inspection, virtual firewalls, transparent (Layer 2) firewalls, failover and redundancy, and QoS Evaluate Intrusion Prevention System (IPS) solutions including IPS integration and Adaptive Inspection and Prevention Security Services Module (AIP-SSM) configuration Deploy VPN solutions including site-to-site IPsec VPNs, remote- access VPNs, and Public Key Infrastructure (PKI) Learn to manage firewall, IPS, and VPN solutions with Adaptive Security Device Manager (ASDM) Achieving maximum network security is a challenge for most organizations. Cisco® ASA, a new unified security device that combines firewall, network antivirus, intrusion prevention, and virtual private network (VPN) capabilities, provides proactive threat defense that stops attacks before they spread through the network. This new family of adaptive security appliances also controls network activity and application traffic and delivers flexible VPN connectivity. The result is a powerful multifunction network security device that provides the security breadth and depth for protecting your entire network, while reducing the high deployment and operations

costs and complexities associated with managing multiple point products. Cisco ASA: All-in-One Firewall, IPS, and VPN Adaptive Security Appliance is a practitioner's guide to planning, deploying, and troubleshooting a comprehensive security plan with Cisco ASA. The book provides valuable insight and deployment examples and demonstrates how adaptive identification and mitigation services on Cisco ASA provide a sophisticated security solution for both large and small network environments. The book contains many useful sample configurations, proven design scenarios, and discussions of debugs that help you understand how to get the most out of Cisco ASA in your own network. "I have found this book really highlights the practical aspects needed for building real-world security. It offers the insider's guidance needed to plan, implement, configure, and troubleshoot the Cisco ASA in customer environments and demonstrates the potential and power of Self-Defending Networks."--Jayshree Ullal, Sr. Vice President, Security Technologies Group, Cisco Systems® This security book is part of th ...

Thoroughly revised and expanded, this second edition adds sections on MPLS, Security, IPv6, and IP Mobility and presents solutions to the most common configuration problems.

The only authorized Lab Manual for the Cisco Networking Academy CCNA Security course The Cisco® Networking Academy® course on CCNA® Security provides a next step for students who want to expand their CCNA-level skill set to prepare for a career in network security. The CCNA Security course also prepares students for the Implementing Cisco IOS® Network Security (IINS) certification exam (xxxx), which leads to the CCNA Security certification. The CCNA Security Lab Manual provides you with all labs from the course designed as hands-on practice to master the knowledge and skills needed to prepare for entry-level security specialist careers. All the hands-on labs in the course can be completed on actual physical equipment or in conjunction with the NDG NETLAB+® solution. For current information on labs compatible with NETLAB+® go to <http://www.netdevgroup.com/ae/labs.htm>. Through procedural, skills integration challenges, troubleshooting, and model building labs, this CCNA Security course aims to develop your in-depth understanding of network security principles as well as the tools and configurations used.

Cisco ASA, PIX, and FWSM Firewall Handbook, Second Edition, is a guide for the most commonly implemented features of the popular Cisco® firewall security solutions. Fully updated to cover the latest firewall releases, this book helps you to quickly and easily configure, integrate, and manage the entire suite of Cisco firewall products, including ASA, PIX®, and the Catalyst® Firewall Services Module (FWSM). Organized by families of features, this book helps you get up to speed quickly and efficiently on topics such as file management, building connectivity, controlling access, firewall management, increasing availability with failover, load balancing, logging, and verifying operation. Sections are marked by shaded tabs for quick reference, and information on each feature is presented in a concise format, with background, configuration, and example components. Whether you are looking for an introduction to the latest ASA, PIX, and FWSM devices or a complete reference for making the most out of your Cisco firewall deployments, Cisco ASA, PIX, and FWSM Firewall Handbook, Second Edition, helps you achieve maximum protection of your network resources. "Many books on network security and firewalls settle for a discussion focused primarily on concepts and theory. This book, however, goes well beyond these topics. It covers in tremendous detail the information every network and security administrator needs to know when configuring and managing market-leading firewall products from Cisco." —Jason Nolet, Vice President of Engineering, Security Technology Group, Cisco David Hucaby, CCIE® No. 4594, is a lead network engineer for the University of Kentucky, where he works with health-care networks based on the Cisco Catalyst, ASA, FWSM, and VPN

product lines. He was one of the beta reviewers of the ASA 8.0 operating system software. Learn about the various firewall models, user interfaces, feature sets, and configuration methods Understand how a Cisco firewall inspects traffic Configure firewall interfaces, routing, IP addressing services, and IP multicast support Maintain security contexts and flash and configuration files, manage users, and monitor firewalls with SNMP Authenticate, authorize, and maintain accounting records for firewall users Control access through the firewall by implementing transparent and routed firewall modes, address translation, and traffic shunning Define security policies that identify and act on various types of traffic with the Modular Policy Framework Increase firewall availability with firewall failover operation Understand how firewall load balancing works Generate firewall activity logs and learn how to analyze the contents of the log Verify firewall operation and connectivity and observe data passing through a firewall Configure Security Services Modules, such as the Content Security Control (CSC) module and the Advanced Inspection Processor (AIP) module 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: Cisco ASA 8.0, PIX 6.3, and FWSM 3.2 version firewalls

The authoritative visual guide to Cisco Firepower Threat Defense (FTD) This is the definitive guide to best practices and advanced troubleshooting techniques for the Cisco flagship Firepower Threat Defense (FTD) system running on Cisco ASA platforms, Cisco Firepower security appliances, Firepower eXtensible Operating System (FXOS), and VMware virtual appliances. Senior Cisco engineer Nazmul Rajib draws on unsurpassed experience supporting and training Cisco Firepower engineers worldwide, and presenting detailed knowledge of Cisco Firepower deployment, tuning, and troubleshooting. Writing for cybersecurity consultants, service providers, channel partners, and enterprise or government security professionals, he shows how to deploy the Cisco Firepower next-generation security technologies to protect your network from potential cyber threats, and how to use Firepower's robust command-line tools to investigate a wide variety of technical issues. Each consistently organized chapter contains definitions of keywords, operational flowcharts, architectural diagrams, best practices, configuration steps (with detailed screenshots), verification tools, troubleshooting techniques, and FAQs drawn directly from issues raised by Cisco customers at the Global Technical Assistance Center (TAC). Covering key Firepower materials on the CCNA Security, CCNP Security, and CCIE Security exams, this guide also includes end-of-chapter quizzes to help candidates prepare.

- Understand the operational architecture of the Cisco Firepower NGFW, NGIPS, and AMP technologies
- Deploy FTD on ASA platform and Firepower appliance running FXOS
- Configure and troubleshoot Firepower Management Center (FMC)
- Plan and deploy FMC and FTD on VMware virtual appliance
- Design and implement the Firepower management network on FMC and FTD
- Understand and apply Firepower licenses, and register FTD with FMC
- Deploy FTD in Routed, Transparent, Inline, Inline Tap, and Passive Modes
- Manage traffic flow with detect-only, block, trust, and bypass operations
- Implement rate limiting and analyze quality of service (QoS)
- Blacklist suspicious IP addresses via Security Intelligence
- Block DNS queries to the malicious domains
- Filter URLs based on category, risk, and reputation
- Discover a network and implement application visibility and control (AVC)
- Control file transfers and block malicious files using advanced malware protection (AMP)
- Halt cyber attacks using Snort-based intrusion rule
- Masquerade an internal host's original IP address using Network Address Translation (NAT)
- Capture traffic and obtain troubleshooting files for advanced analysis
- Use command-line tools to identify status, trace packet flows, analyze logs, and debug messages

End-to-End Network Security Defense-in-Depth Best practices for assessing and improving network defenses and responding to security incidents Omar Santos Information security practices have evolved from Internet perimeter protection to an in-depth defense model in which

multiple countermeasures are layered throughout the infrastructure to address vulnerabilities and attacks. This is necessary due to increased attack frequency, diverse attack sophistication, and the rapid nature of attack velocity—all blurring the boundaries between the network and perimeter. End-to-End Network Security is designed to counter the new generation of complex threats. Adopting this robust security strategy defends against highly sophisticated attacks that can occur at multiple locations in your network. The ultimate goal is to deploy a set of security capabilities that together create an intelligent, self-defending network that identifies attacks as they occur, generates alerts as appropriate, and then automatically responds. End-to-End Network Security provides you with a comprehensive look at the mechanisms to counter threats to each part of your network. The book starts with a review of network security technologies then covers the six-step methodology for incident response and best practices from proactive security frameworks. Later chapters cover wireless network security, IP telephony security, data center security, and IPv6 security. Finally, several case studies representing small, medium, and large enterprises provide detailed example configurations and implementation strategies of best practices learned in earlier chapters. Adopting the techniques and strategies outlined in this book enables you to prevent day-zero attacks, improve your overall security posture, build strong policies, and deploy intelligent, self-defending networks. “Within these pages, you will find many practical tools, both process related and technology related, that you can draw on to improve your risk mitigation strategies.” —Bruce Murphy, Vice President, World Wide Security Practices, Cisco Omar Santos is a senior network security engineer at Cisco®. Omar has designed, implemented, and supported numerous secure networks for Fortune 500 companies and the U.S. government. Prior to his current role, he was a technical leader within the World Wide Security Practice and the Cisco Technical Assistance Center (TAC), where he taught, led, and mentored many engineers within both organizations. Guard your network with firewalls, VPNs, and intrusion prevention systems Control network access with AAA Enforce security policies with Cisco Network Admission Control (NAC) Learn how to perform risk and threat analysis Harden your network infrastructure, security policies, and procedures against security threats Identify and classify security threats Trace back attacks to their source Learn how to best react to security incidents Maintain visibility and control over your network with the SAVE framework Apply Defense-in-Depth principles to wireless networks, IP telephony networks, data centers, and IPv6 networks 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: Network security and incident response

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

There is a newer version of this book, updated for software version 9.x and later. Look for ISBN 978-0983660750. This version is appropriate for software versions 8.3 and 8.4. The Accidental Administrator: Cisco ASA Step-by-Step Configuration Guide is packed with 56 easy-to-follow hands-on exercises to help you build a working firewall configuration from scratch. It’s the most straight-forward approach to learning how to configure the Cisco ASA Security Appliance, filled with practical tips and secrets learned from years of teaching and consulting on the ASA. There is no time wasted on boring theory. The essentials are covered in chapters on installing, backups and restores, remote administration, VPNs, DMZs, usernames, transparent mode, static NAT, port address translation, access lists, DHCP, password recovery, logon banners, AAA (authentication, authorization, and accounting), filtering content, and more. This book is based on software version 8.3(1). All this information is presented in a straightforward style that you can understand and use right away. The idea is for you to be able to sit down with your ASA 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 it done” in a minimal amount of time!

Go beyond layer 2 broadcast domains with this in-depth tour of advanced link and internetwork layer protocols, and learn how they enable you to expand to larger topologies. An ideal follow-up to Packet Guide to Core Network Protocols, this concise guide dissects several of these protocols to explain their structure and operation. This isn’t a book on packet theory. Author Bruce Hartpence built topologies in a lab as he wrote this guide, and each chapter includes several packet captures. You’ll learn about protocol classification, static vs. dynamic topologies, and reasons for installing a particular route. This guide covers: Host routing—Process a routing table and learn how traffic starts out across a network Static routing—Build router routing tables and understand how forwarding decisions are made and processed Spanning Tree

Protocol—Learn how this protocol is an integral part of every network containing switches
Virtual Local Area Networks—Use VLANs to address the limitations of layer 2 networks
Trunking—Get an indepth look at VLAN tagging and the 802.1Q protocol
Routing Information Protocol—Understand how this distance vector protocol works in small, modern communication networks
Open Shortest Path First—Discover why convergence times of OSPF and other link state protocols are improved over distance vectors

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"Richard Deal's gift of making difficult technology concepts understandable has remained constant. Whether it is presenting to a room of information technology professionals or writing books, Richard's communication skills are unsurpassed. As information technology professionals we are faced with overcoming challenges every day...Cisco ASA Configuration is a great reference and tool for answering our challenges." --From the Foreword by Steve Marcinek (CCIE 7225), Systems Engineer, Cisco Systems
A hands-on guide to implementing Cisco ASA Configure and maintain a Cisco ASA platform to meet the requirements of your security policy. Cisco ASA Configuration shows you how to control traffic in the corporate network and protect it from internal and external threats. This comprehensive resource covers the latest features available in Cisco ASA version 8.0, and includes detailed examples of complex configurations and troubleshooting. Implement and manage Cisco's powerful, multifunction network adaptive security appliance with help from this definitive guide. Configure Cisco ASA using the command-line interface (CLI) and Adaptive Security Device Manager (ASDM) Control traffic through the appliance with access control lists (ACLs) and object groups Filter Java, ActiveX, and web content Authenticate and authorize connections using Cut-through Proxy (CTP) Use Modular Policy Framework (MPF) to configure security appliance features Perform protocol and application inspection Enable IPsec site-to-site and remote access connections Configure WebVPN components for SSL VPN access Implement advanced

features, including the transparent firewall, security contexts, and failover Detect and prevent network attacks Prepare and manage the AIP-SSM and CSC-SSM cards

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

Covers the most important and common configuration scenarios and features which will put you on track to start implementing ASA firewalls right away.

Cisco® Nexus switches and the new NX-OS operating system are rapidly becoming the new de facto standards for data center distribution/aggregation layer networking. NX-OS builds on Cisco IOS to provide advanced features that will be increasingly crucial to efficient data center operations. NX-OS and Cisco Nexus Switching is the definitive guide to utilizing these powerful new capabilities in enterprise environments. In this book, three Cisco consultants cover every facet of deploying, configuring, operating, and troubleshooting NX-OS in the data center. They review the key NX-OS enhancements for high availability, virtualization, In-Service Software Upgrades (ISSU), and security. In this book, you will discover support and configuration best practices for working with Layer 2 and Layer 3 protocols and networks, implementing multicasting, maximizing serviceability, providing consistent network and storage services, and much more. The authors present multiple command-line interface (CLI) commands, screen captures, realistic configurations, and troubleshooting tips—all based on their extensive experience working with customers who have successfully deployed Nexus switches in their data centers. Learn how Cisco NX-OS builds on and differs from IOS Work with NX-OS user modes, management interfaces, and system files Configure Layer 2 networking: VLANs/private VLANs, STP, virtual port channels, and unidirectional link detection Configure Layer 3 EIGRP, OSPF, BGP, and First Hop Redundancy Protocols

(FHRPs) Set up IP multicasting with PIM, IGMP, and MSDP Secure NX-OS with SSH, Cisco TrustSec, ACLs, port security, DHCP snooping, Dynamic ARP inspection, IP Source Guard, keychains, Traffic Storm Control, and more Build high availability networks using process modularity and restart, stateful switchover, nonstop forwarding, and in-service software upgrades Utilize NX-OS embedded serviceability, including Switched Port Analyzer (SPAN), Smart Call Home, Configuration Checkpoint/Rollback, and NetFlow Use the NX-OS Unified Fabric to simplify infrastructure and provide ubiquitous network and storage services Run NX-OS on Nexus 1000V server-based software switches 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.

The definitive insider's guide to planning, installing, configuring, and maintaining the new Cisco Adaptive Security Appliance.

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.

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

The book begins with a summary of essential thermodynamic and kinetic facts, emphasizing aspects of these fields, where relevant, to reactions in solution. Chapter 2 introduces the reader to the role of the solvent purely as a medium, touching on early theories based on electrostatic considerations (Born and Kirkwood-Onsager) and the solubility parameter (Hildebrand). Chapter 3 discusses the role of solvent as an active participant, chiefly through hydrogen bonding, Bronsted-Lowry and Lewis acid-base interactions, including hard and soft acids and bases. The ability of solvents to serve as media for oxidation and reduction is also touched upon. There then follows a chapter on chemometrics; the application of statistical methods to chemical phenomena and spectra, chiefly linear free energy correlations and principal component analysis. A novel method for the presentation of data is also described.

With a CCNA Security certification, you can demonstrate the skills required to develop a security infrastructure, recognize threats to networks, and mitigate security threats. Geared towards Cisco Security, the practical aspects of this book will help you clear the CCNA Security Exam (210-260) by increasing your knowledge of Network Security.

Network threats are emerging and changing faster than ever before. Cisco Next-Generation Network Security technologies give you all the visibility and control you need to anticipate and meet tomorrow's threats, wherever they appear. Now, three Cisco network security experts introduce these products and solutions, and offer expert guidance for planning, deploying, and operating them. The authors present authoritative coverage of Cisco ASA with FirePOWER Services; Cisco Firepower Threat Defense (FTD); Cisco Next-Generation IPS appliances; the Cisco Web Security Appliance (WSA) with integrated Advanced Malware Protection (AMP); Cisco Email Security Appliance (ESA) with integrated Advanced Malware Protection (AMP); Cisco AMP ThreatGrid Malware Analysis and Threat Intelligence, and the Cisco Firepower Management Center (FMC). You'll find everything you need to succeed: easy-to-follow configurations, application case studies, practical triage and troubleshooting methodologies, and much more. Effectively respond to changing threat landscapes and attack continuums Design Cisco ASA with FirePOWER Services and Cisco Firepower Threat Defense (FTD) solutions Set up, configure, and troubleshoot the Cisco ASA FirePOWER Services module and Cisco Firepower Threat Defense Walk through installing AMP Private Clouds Deploy Cisco AMP for Networks, and configure malware and file policies Implement AMP for Content Security, and configure File Reputation and File Analysis Services Master Cisco AMP for Endpoints, including custom detection, application control, and policy management Make the most of the AMP ThreatGrid dynamic malware analysis engine Manage Next-Generation Security Devices with the Firepower Management Center (FMC) Plan, implement, and configure Cisco Next-Generation IPS—including performance and redundancy Create Cisco Next-Generation IPS custom reports and analyses Quickly identify the root causes of security problems

Product Description Firewalls have ample recognition as key elements on the field of protecting networks. Even though this is not a new subject, many important concepts and resources, which could be helpful to designing a secure network, are often overlooked or even ignored. This book unveils the potential of Cisco firewall products and functionalities, and demonstrates how they can be grouped, in a structured manner, in order to build security solutions. The text is written in such a way that instructive linkages between theory and practice

are naturally created, thus contributing to a better understanding of the most relevant concepts, and preparing the reader for the production of solid designs. The motivation for writing this book is associated with a simple axiom assumed: The better you understand how individual features operate, the better you can use them for design purposes. After all, producing better security designs is the aim of anyone truly committed to security. The book is organized in 17 chapters, as follows: Chapter 1. Firewalls and Network Security Chapter 2. Cisco Firewall Families Overview Chapter 3. Configuration Fundamentals Chapter 4. Learn the Tools. Know the Firewall Chapter 5. Firewalls in the Network Topology Chapter 6. Virtualization in the Firewall World Chapter 7. Through ASA without NAT Chapter 8. Through ASA using NAT Chapter 9. Classic IOS Firewall Overview Chapter 10. IOS Zone Policy Firewall Overview Chapter 11. Additional Protection Mechanisms Chapter 12. Application Inspection Chapter 13. Inspection of Voice Protocols Chapter 14. Identity on Cisco Firewalls Chapter 15. Firewalls and IP Multicast Chapter 16. Cisco Firewalls and IPv6 Chapter 17. Firewall Interactions Appendix A - NAT and ACL changes in ASA 8.3 Foreword (by Yusuf Bhaiji) Networks today have outgrown exponentially both in size and complexity, becoming more multifaceted and increasingly challenging to secure. The blueprint of a core network requires a strong foundation, which can be simply provided with an integrated firewall architecture cemented at the core of the system. Today, the firewall has become a core entity within a network and an integral part of every network infrastructure. Cisco Firewalls by Alexandre M. S. P. Moraes, has taken a stab at unleashing some of the fundamentally missed concepts, providing readers with a complete library of the entire family of Cisco Firewall products in a single binder. Alexandre has used a unique approach in explaining the concepts and architecture of the firewall technology. His distinct style has proven his skill at writing on a difficult subject using easy to understand illustrations that walk the reader through a step-by-step approach that shows the theory in action. He has combined some of the commonly used tools with the outputs from several commands to demonstrate the understanding of the technology and exemplifying how it works. Cisco Firewalls is unlike any other book on this subject and cannot be categorized as a configuration guide or command syntax manual. It provides the readers with the key tools and essential techniques to understand the wide-ranging Cisco firewall portfolio. Whether you are just a beginner trying to learn Cisco firewalls or an experienced engineer looking for a reference, there is something for everyone in this book at varying levels. Cisco Firewalls is an essential reference in designing, implementing, and maintaining today's highly secured networks. It is a must read and a must have in your collection - Magnum Opus! Yusuf Bhaiji; Sr. Manager, Expert Certifications (CCIE, CCDE, CCAr) 'Alexandre has worked with Cisco Security technologies since the year 2000 and is a well recognized expert in the LATAM Security community. He is a frequent speaker at Cisco Networkers and other Security conferences and has helped on training partners and customers in Brazil. In this book, he proposes a totally different approach to the important subject of Firewalls: instead of just presenting configuration models, he uses a set of carefully crafted examples to illustrate the theory in action. From the configuration fundamentals to advanced topics such as Voice Inspection, Multicast, IPv6 and Identity-based firewalls, the book unveils important details about the operations of Cisco firewalls solutions, enabling the reader to better use this knowledge on Security Design. A must read!' Luc Billot, Security Consulting Engineer at Cisco (Emerging Markets and European Market) 'I think that Alexandre's book could have the alternative title 'Cisco Firewalls illustrated'. The way in which he links theory and practice is really insightful and greatly helps on understanding individual features and making better use of them for Security design. Definitely a reference work in the subject!' Louis Senecal, CCIE 2198, Consulting Systems Engineer, Cisco (Canada) 'In this fully illustrated tour to the world of Cisco Firewalls, Alexandre devotes a great deal of attention to Data Center related topics. Network Virtualization architecture and protection of environments that include Virtual Machines figure among the important subjects covered in the book. For those that want to benefit from Virtualization without

compromising Security, this work is highly recommended.' David Gonzalez, CISSP #99462, Consulting Systems Engineer at Cisco (LATAM) 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.

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

Become an expert in Cisco VPN technologies with this practical and comprehensive configuration guide. Learn how to configure IPSEC VPNs (site-to-site, hub-and-spoke, remote access), SSL VPN, DMVPN, GRE, VTI etc. This book is packed with step-by-step configuration tutorials and real world scenarios to implement VPNs on Cisco ASA Firewalls (v8.4 and above and v9.x) and on Cisco Routers. It is filled with raw practical concepts, around 40 network diagrams to

explain the scenarios, troubleshooting instructions, 20 complete configurations on actual devices and much more. Both beginners and experts will find some golden nuggets inside this practical guide. Every Cisco Networking Professional in this planet will have to configure some kind of VPN sooner or later in his/her professional career. This VPN Guide, therefore, will be a great reference for years to come. Some of the topics covered include the following: Policy-Based (IPSEC) and Route-Based VPNs (Comparison and Applications). Practical Applications of each VPN Technology. Configuration of Site-to-Site, Hub-and-Spoke and Remote Access IPSEC VPNs on Cisco Routers. Configuration of Route-Based VPNs using GRE, Static VTI, Dynamic VTI. Configuration of Dynamic Multipoint VPN (DMVPN) on Cisco Routers. Configuration of PPTP VPNs on Cisco Routers. Configuration of Site-to-Site and Hub-and-Spoke IPSEC VPNs (including IKEv2 IPSEC) on Cisco ASA Firewalls. Configuration of Remote Access IPSEC VPN and Anyconnect SSL VPN on Cisco ASA Firewalls. VPN Authentication using Active Directory, RSA Server and external AAA Server. PLUS MUCH MORE In addition to the most popular VPN topologies and scenarios, the book contains also some special cases for which you will not find information easily anywhere else. Some special cases and scenarios included in the book: VPNs with sites having dynamic public IP address. Implementations of hub-and-spoke together with remote access VPNs on the same device. Using Dynamic Routing Protocols (EIGRP) to make VPNs on Routers more scalable. Spoke to Spoke communication via the Hub Site (using VPN Hairpinning on ASA). Remote Access users to communicate with Spoke sites via the Hub (using VPN Hairpinning on ASA). Site-to-Site IPSEC VPN with duplicate subnets on the two sites. IPSEC VPN Failover with backup ISP.

Cisco®ASAAll-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

ABOUT THE BOOK Cisco Virtual Internet Routing Lab (VIRL) is a software tool to build and run network simulations without the need for physical hardware. The VIRL Book guides you through installing, configuring and using VIRL on Windows, Mac OSX, VMware ESXi and Cloud environments. The book is written for students who are studying for CCNA, CCNP and CCIE certification exams, training and learning about network technologies. This book is also for IT networking professionals who want to mock up production network, test network changes, and test new features without risking downtime. **FOR NETWORK ENGINEERS** The real-world network topology examples in this book show users step-by-step the key techniques when working in VIRL building best practice configuration of each network device. Observe how the network and servers work together in a practical manner. Study the behavior and apply the knowledge to setting up real-world network infrastructure. Download free sample network topology projects on www.virlbook.com and get started today! **FOR INSTRUCTORS AND STUDENTS** The certification-oriented network examples guide students through building, configuring and troubleshooting a network often appears in the exams. The book also helps Cisco Networking Academy instructors to teach, and students to learn and build successful IT careers. Students will gain good understanding and knowledge building network simulations to practice while pursuing IT networking certifications.

SAMPLE NETWORK TOPOLOGIES Topology 1: VLAN, Trunking, STP and Ether-Channel (CCNA) Topology 2: Configuring EIGRP IPv4 and IPv6 (CCNA) Topology 3: Configuring OSPF IPv4 and IPv6 (CCNA) Topology 4: Configuring IOS NAT/PAT (CCNA) Topology 5: Configuring ASA With Multiple DMZ Networks (Security) Topology 6: Configuring L2TP Over IPsec VPN on Cisco ASA (Security) Topology 7: Configuring Automatic ISP Failover (WAN, BGP) Topology 8: Configuring DMVPN With IPsec and EIGRP Overlay (CCIE) Topology 9: Configuring MPLS VPN, VRF, OSPF and BGP (CCIE) Download at virlbook.com

Annotation Cisco®ASAAll-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

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A comprehensive guide for deploying, configuring, and troubleshooting NetFlow and learning big data analytics technologies for cyber security Today's world of network security is full of cyber security vulnerabilities, incidents,

breaches, and many headaches. Visibility into the network is an indispensable tool for network and security professionals and Cisco NetFlow creates an environment where network administrators and security professionals have the tools to understand who, what, when, where, and how network traffic is flowing. Network Security with NetFlow and IPFIX is a key resource for introducing yourself to and understanding the power behind the Cisco NetFlow solution. Omar Santos, a Cisco Product Security Incident Response Team (PSIRT) technical leader and author of numerous books including the CCNA Security 210-260 Official Cert Guide, details the importance of NetFlow and demonstrates how it can be used by large enterprises and small-to-medium-sized businesses to meet critical network challenges. This book also examines NetFlow's potential as a powerful network security tool. Network Security with NetFlow and IPFIX explores everything you need to know to fully understand and implement the Cisco Cyber Threat Defense Solution. It also provides detailed configuration and troubleshooting guidance, sample configurations with depth analysis of design scenarios in every chapter, and detailed case studies with real-life scenarios. You can follow Omar on Twitter: @santosomar

NetFlow and IPFIX basics
Cisco NetFlow versions and features
Cisco Flexible NetFlow
NetFlow Commercial and Open Source
Software Packages
Big Data Analytics tools and technologies such as Hadoop, Flume, Kafka, Storm, Hive, HBase, Elasticsearch, Logstash, Kibana (ELK)
Additional Telemetry Sources for Big Data Analytics for Cyber Security
Understanding big data scalability
Big data analytics in the Internet of everything
Cisco Cyber Threat Defense and NetFlow Troubleshooting
NetFlow Real-world case studies

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