

Cisco Lan Switching Ccie Professional Development

Protecting systems within an enterprise has proven as important to overall security as securing the enterprise perimeter. Over the past few years, the number of vulnerabilities stemming from weaknesses in applications and operating systems has grown dramatically. In direct correlation with the number of weaknesses discovered, the number of viruses, worms, and security attacks has also exploded across the Internet. To add to the typical virus issues that businesses have had to confront, there are also malicious programs infiltrating organizations today in the form of spyware and adware. Prevent day-zero attacks Enforce acceptable-use policies Develop host-IPS project implementation plans Evaluate management hierarchy installation options, including single-server, multiserver, and built-in database usage Learn about CSA agents and manual and scripted installation options Understand policy components and custom policy creation Use and filter information from CSA event logs Troubleshoot CSA deployments with agent and management server logs and built-in troubleshooting tools Protecting systems where the private data and intellectual property resides is no longer considered a function of perimeter defense systems but has instead become the domain of endpoint protection software, such as host Intrusion Prevention Systems (IPS). Cisco® Security Agent (CSA) is the Cisco Systems® host-IPS solution. CSA provides the security controls that corporations need to deal with threats to host and desktop computing resources. Advanced Host Intrusion Prevention with CSA is a practical guide to getting the most out of CSA deployments. Through methodical explanation of advanced CSA features and concepts, this book helps ease the fears of security administrators seeking to install and configure a host IPS. This book explains in detail such topics as installation of the management servers, installation of the agents for mass deployment, granular agent policy creation, advanced policy creation, real-world troubleshooting techniques, and best practices in implementation methodology. This guide also provides a practical installation framework taken from the actual installation and support experience of the authors. This book helps you implement host IPS appropriately, giving your organization better protection from the various threats that are impacting your business while at the same time enabling you to comply with various legal requirements put forth in such legislation as HIPAA, SOX, SB1386, and VISA PCI.

CD-ROM (v.1) contains full text of the Certification guide; test engine; chapter 13 lab solutions; sample chapters from the other books.

Previous ed. by Jonathan Davidson, James Peters, 2000.

And server load balancing fundamentals are covered in detail, including session persistence and cookies, server health, modes and predictors, and multitier architectures. Putting it all together are chapters on Data Center design that also advise you on integrating security into your design and understanding performance metrics of Data Center devices. An in-depth analysis of the Data Center technology coupled with real-life scenarios make Data Center Fundamentals an ideal reference for understanding, planning, and designing scalable, highly available, and secure server farms applicable to web-hosting and e-commerce

environments amongst others. Book jacket.

A guide to wireless LAN technology and security, covering such topics as protocols, deployment patterns, WEP, EAP, switching, and management.

The complete resource for understanding and deploying IP quality of service for Cisco networks Learn to deliver and deploy IP QoS and MPLS-based traffic engineering by understanding: QoS fundamentals and the need for IP QoS The Differentiated Services QoS architecture and its enabling QoS functionality The Integrated Services QoS model and its enabling QoS functions ATM, Frame Relay, and IEEE 802.1p/802.1Q QoS technologies and how they work with IP QoS MPLS and MPLS VPN QoS and how they work with IP QoS MPLS traffic engineering Routing policies, general IP QoS functions, and other miscellaneous QoS information Quality-of-service (QoS) technologies provide networks with greater reliability in delivering applications, as well as control over access, delay, loss, content quality, and bandwidth. IP QoS functions are crucial in today's scalable IP networks. These networks are designed to deliver reliable and differentiated Internet services by enabling network operators to control network resources and use. Network planners, designers, and engineers need a thorough understanding of QoS concepts and features to enable their networks to run at maximum efficiency and to deliver the new generation of time-critical multimedia and voice applications. IP Quality of Service serves as an essential resource and design guide for anyone planning to deploy QoS services in Cisco networks. Author Srinivas Vegesna provides complete coverage of Cisco IP QoS features and functions, including case studies and configuration examples. The emphasis is on real-world application-going beyond conceptual explanations to teach actual deployment. IP Quality of Service is written for internetworking professionals who are responsible for designing and maintaining IP services for corporate intranets and for service provider network infrastructures. If you are a network engineer, architect, manager, planner, or operator who has a rudimentary knowledge of QoS technologies, this book will provide you with practical insights on what you need to consider when designing and implementing various degrees of QoS in the network. Because incorporating some measure of QoS is an integral part of any network design process, IP Quality of Service applies to all IP networks-corporate intranets, service provider networks, and the Internet.

CCIE Routing and Switching v5.0 Troubleshooting Practice Labs presents you with two full troubleshooting lab scenarios in exam style format to echo the real CCIE Routing and Switching v5.0 lab exam. This publication gives you the opportunity to put into practice your own extensive theoretical knowledge of subjects to find out how they interact with each other on a larger complex scale. An "Ask the Proctor" section list of questions for each section helps provide clarity and maintain direction to ensure that you do not give up and check the answers directly if you find a task too challenging. After each lab, this eBook lets you compare configurations and routing tables with the required answers. You also can run through a lab debrief, view configurations, and cut and paste configs into your own lab equipment for testing and verification. The point scoring for each question lets you know whether you passed or failed each lab. This extensive set of practice labs that sells for hundreds of dollars elsewhere helps you make sure you are fully prepared for the grueling CCIE Routing and Switching lab exam experience.

CCIE Routing and Switching v5.0 Official Cert Guide Library, Fifth Edition Assessment, review, and practice package for the CCIE R&S v5.0 exams Includes CCIE Routing and Switching v5.0 Official Cert Guide, Volume 1, Fifth Edition, and CCIE Routing and Switching v5.0 Official Cert Guide, Volume 2, Fifth Edition. This is the eBook version of the print title. The eBook edition does not provide access to the test engine software or the practice tests that accompany the print book These official study guides help you master all the topics on the CCIE R&S v5.0 exams, including Virtual LANs and VLAN Trunking Spanning Tree Protocol (STP) IP services (ARP, NTP, DHCP, NAT, SNMP, NetFlow, and more) IPv2 and IPv4 EIGRP OSPFv2 and v3 IS-IS Route redistribution, route summarization, default routing, and performance routing BGP operations and routing policies QoS WANs IP Multicast Device and network security and tunneling technologies MPLS CCIE Routing and Switching v5.0 Official Cert Guide Library, Fifth Edition from Cisco Press enables you to succeed on the exam the first time and is the only self-study resource approved by Cisco. In the two books included in this package, expert instructors Narbik Kocharians, Peter Palúch, and Terry Vinson share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. The first volume covers LAN switching, IP networking, and IP IGP routing topics. The second volume covers IP BGP routing, quality of service (QoS), wide area networks, IP multicast, network security, and Multiprotocol Label Switching (MPLS) topics. Together, these two books cover all the topics on the new v5.0 blueprint. This complete study package includes A test-preparation routine proven to help you pass the exams “Do I Know This Already?” quizzes, which enable you to decide how much time you need to spend on each section Chapter-ending exercises, which help you drill on key concepts you must know thoroughly A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. CCIE Routing and Switching v5.0 Official Cert Guide Library, Fifth Edition is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com. This volume is part of the Official Cert Guide series from Cisco Press. Books in this series provide officially developed exam preparation materials that offer assessment, review, and practice to help Cisco Career Certification candidates identify weaknesses, concentrate their study efforts, and enhance their confidence as exam day nears.

Expert solutions for securing network infrastructures and VPNs Build security into the network by defining zones, implementing secure routing protocol designs, and building safe LAN switching environments Understand the inner workings of the Cisco PIX Firewall and analyze in-depth Cisco PIX Firewall and Cisco IOS Firewall features and concepts Understand what VPNs are and how they are implemented with protocols such as GRE, L2TP, and IPSec Gain a packet-level understanding of the IPSec suite of protocols, its associated encryption and hashing functions, and authentication techniques Learn how network attacks can be

categorized and how the Cisco IDS is designed and can be set up to protect against them Control network access by learning how AAA fits into the Cisco security model and by implementing RADIUS and TACACS+ protocols Provision service provider security using ACLs, NBAR, and CAR to identify and control attacks Identify and resolve common implementation failures by evaluating real-world troubleshooting scenarios As organizations increase their dependence on networks for core business processes and increase access to remote sites and mobile workers via virtual private networks (VPNs), network security becomes more and more critical. In today's networked era, information is an organization's most valuable resource. Lack of customer, partner, and employee access to e-commerce and data servers can impact both revenue and productivity. Even so, most networks do not have the proper degree of security. Network Security Principles and Practices provides an in-depth understanding of the policies, products, and expertise that brings organization to this extremely complex topic and boosts your confidence in the performance and integrity of your network systems and services. Written by the CCIE engineer who wrote the CCIE Security lab exam and who helped develop the CCIE Security written exam, Network Security Principles and Practices is the first book to help prepare candidates for the CCIE Security exams. Network Security Principles and Practices is a comprehensive guide to network security threats and the policies and tools developed specifically to combat those threats. Taking a practical, applied approach to building security into networks, the book shows you how to build secure network architectures from the ground up. Security aspects of routing protocols, Layer 2 threats, and switch security features are all analyzed. A comprehensive treatment of VPNs and IPsec is presented in extensive packet-by-packet detail. The book takes a behind-the-scenes look at how the Cisco PIX(r) Firewall actually works, presenting many difficult-to-understand and new Cisco PIX Firewall and Cisco IOS(r) Firewall concepts. The book launches into a discussion of intrusion detection systems (IDS) by analyzing and breaking down modern-day network attacks, describing how an IDS deals with those threats in general, and elaborating on the Cisco implementation of IDS. The book also discusses AAA, RADIUS, and TACACS+ and their usage with some of the newer security implementations such as VPNs and proxy authentication. A complete section devoted to service provider techniques for enhancing customer security and providing support in the event of an attack is also included. Finally, the book concludes with a section dedicated to discussing tried-and-tested troubleshooting tools and techniques that are not only invaluable to candidates working toward their CCIE Security lab exam but also to the security network administrator running the operations of a network on a daily basis.

Delivers the proven solutions that make a difference in your Cisco IP Telephony deployment Learn dial plan best practices that help you configure features such as intercom, group speed dials, music on hold, extension mobility, and more Understand how to manage and monitor your system proactively for maximum uptime Use dial plan components to reduce your exposure to toll fraud Take advantage of call detail records for call tracing and accounting, as well as troubleshooting Utilize the many Cisco IP Telephony features to enable branch site deployments Discover the best ways to install, upgrade, patch, and back up CallManager Learn how backing up to remote media provides both configuration recovery and failure survivability IP telephony represents the future of telecommunications: a converged data and voice infrastructure boasting greater flexibility and more cost-effective

knowledge with chapter-opening quizzes Review key concepts with Exam Preparation Tasks CCNP SWITCH 642-813 Official Certification Guide is a best-of-breed Cisco® exam study guide that focuses specifically on the objectives for the CCNP® SWITCH exam. Network architect and best-selling author Dave Hucaby shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. CCNP SWITCH 642-813 Official Certification Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and allow you to decide how much time you need to spend on each section. The complete exam topic list makes referencing easy. Chapter-ending Exam Preparation Tasks sections help drill you on key concepts and commands you must know thoroughly. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. CCNP SWITCH 642-813 Official Certification Guide is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. This official study guide helps you master all the topics on the CCNP SWITCH exam, including Network design, implementation, and verification plans Switch operation and port configuration VLANs, trunks, and VLAN Trunking Protocol (VTP) Aggregating switch links Spanning Tree Protocol (STP) Multilayer switching Enterprise campus network design Router and supervisor redundancy IP telephony Wireless LANs Switched network security This volume is part of the Official Certification Guide Series from Cisco Press. Books in this series provide officially developed exam preparation materials that offer assessment, review, and practice to help Cisco Career Certification candidates identify weaknesses, concentrate their study efforts, and enhance their confidence as exam day nears.

CCIE Routing and Switching v5.0 Configuration and Troubleshooting Practice Labs Bundle presents you with three full configuration lab scenarios and two full troubleshooting lab scenarios in exam style format to echo the real CCIE Routing and Switching v5.0 lab exam. This publication gives you the opportunity to put into practice your own extensive theoretical knowledge of subjects to find out how they interact with each other on a larger complex scale. ¿ An "Ask the Proctor" section list of questions for each section helps provide clarity and maintain direction to ensure that you do not give up and check the answers directly if you find a task too challenging. After each lab, this eBook lets you compare configurations and routing tables with the required answers. You also can run through a lab debrief, view configurations, and cut and paste configs into your own lab equipment for testing and verification. The point scoring for each question lets you know whether you passed or failed each lab. ¿ This extensive set of practice labs that sells for hundreds of dollars elsewhere helps you make sure you are fully prepared for the grueling CCIE Routing and Switching lab exam experience. ¿ This ebook 'bundle' contains the complete text of two ebooks - Cisco CCIE Routing and Switching v5.0 Configuration Practice Labs and Cisco CCIE Routing and Switching v5.0 Troubleshooting Practice Labs.

Authorized self-study guide for voice over data network foundation learning This book will help you to: Configure Voice over Frame Relay, ATM, or IP using Cisco IOS(r) software Analyze existing voice hardware/software, and select the Cisco multiservice access devices that best serve your needs Analyze existing branch and regional office voice networks and services, and choose the optimum transmission method for voice traffic: Frame Relay, ATM, or IP Learn the fundamentals of VoFR, VoATM, and VoIP standards, protocols, and the Cisco hardware that supports these services Learn the basics of the Architecture for Voice, Video, and Integrated Data (AVVID) including CallManager, Cisco IP Phones, and related voice gateway equipment Design, configure, integrate, and optimize an enterprise network in remote branch and regional offices by using integrated access technology that combines voice and data transmission over Frame Relay, ATM, and IP connections, access devices, and CIPT client hardware Learn the fundamentals of PBXs, and apply the principles and concepts to develop a process for integrating Cisco equipment with PBXs and for replacing PBXs Cisco Voice over Frame Relay, ATM, and IP teaches you the Cisco solutions for voice technology (VoIP, VoFR, VoATM). This complete solutions guide helps you analyze existing voice hardware and software and select the Cisco multiservice access devices that best serve the needs of your network environment. In addition to learning how to design, configure, integrate, and optimize networks in remote branch and regional offices, this book also provides you with a fundamental understanding of PBXs, enabling you to develop a process for integrating Cisco equipment with or replacing PBXs. Cisco Voice over Frame Relay, ATM, and IP prepares you for voice and data integration by teaching you how to install and configure Cisco voice and data network routers; how to configure Cisco voice-enabled equipment for Voice over Frame Relay, ATM, and IP; how to configure voice ports, dial peers, and special commands to enable voice transmission over a data network; and how to perform voice traffic analysis to determine how to improve the quality of service (QoS) for delay-sensitive voice traffic. This book features actual router output and configuration examples to aid in the discussion of the configuration of these technologies. At the end of each chapter your comprehension is tested by review questions. Cisco Voice over Frame Relay, ATM, and IP has all of the tools you need to vastly improve your understanding of the Cisco solution to voice networking needs. Cisco Voice over Frame Relay, ATM, and IP is part of a recommended self-study program from Cisco Systems(r) that includes simulation and hands-on training from authorized Cisco Learning Partners, and self-study products from Cisco Press. To find out more about instructor-led, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners, please visit www.cisco.com/go/authorizedtraining. This volume is in the Certification Self-Study Series offered by Cisco Press(r). Books in this series provide officially developed self-study solutions to help networking professionals understand technology implementations and prepare for the Cisco Career Certifications examinations.

Cisco Unity Deployment and Solutions Guide shows you how to integrate Cisco Unity with Cisco IP-based communication solutions, including Cisco CallManager. Part I introduces you to the Cisco Unity architecture and teaches you about the Cisco Unity feature set. Part II helps you design and deploy a unified message solution with Cisco Unity, and Part III helps you manage and administer your solution by leveraging the tools within Cisco Unity. Cisco Unity

Deployment and Solutions Guide teaches you all that you need to know about designing, deploying, and managing a sustainable, unified messaging solution.

This is the only official Cisco Systems-endorsed study guide for the CCIE Routing and Switching exam. The CD-ROM customizable test engine contains unique practice questions and a full electronic version of the text.

• Concise overviews of technologies essential to networking professionals at all levels, from novice to expert. • New chapters include coverage of important topics like VoIP and EAP • Coverage of cutting edge technologies like optical networking and storage • Authored by Cisco Systems, worldwide leader in networking for the Internet.

A complete, practical guide to the world's most popular signaling system, including SIGTRAN, GSM-MAP, and Intelligent Networks. Provides in-depth coverage of the SS7 protocols, including implementation details Covers SS7 over IP (SIGTRAN) using real-world examples Covers SS7/C7 from both a North American and European perspective, providing a broad international understanding of the technology and associated standards Explains mobile wireless concepts and signaling, including mobile application part (MAP) Provides a thorough explanation of the Intelligent Network (IN) and associated protocols (INAP/AIN) Signaling System No. 7 (SS7) is a signaling network and protocol that is used globally to bring telecommunications networks, both fixed-line and cellular, to life. SS7 has numerous applications and is at the very heart of telecommunications. Setting up phone calls, providing cellular roaming and messaging, and supplying converged voice and data services are only a few of the ways that SS7 is used in the communications network. SS7 also provides the point of interconnection between converging voice and data networks. This transition, which affects everyone who works with the data network, has bolstered the need for practical and applied information on SS7. In short, anyone who is interested in telecommunications should have a solid understanding of SS7. Signaling System No. 7 (SS7/C7): Protocol, Architecture, and Services will help you understand SS7 from several perspectives. It examines the framework and architecture of SS7, as well as how it is used to provide today's telecommunications services. It also examines each level of the SS7 protocol-all the way down to the bit level of messages. In addition, the SIGTRAN standards are discussed in detail, showing the migration from SS7 to IP and explaining how SS7 information is transported over IP.

• Gain CCIE lab exam experience with volume 2 of the best-selling CCIE Practical Studies. • Experience putting concepts into practice with lab scenarios that guide you in applying what you know onto real networks. • Learn how to build a practice lab for your CCIE lab exam preparation. • Use detailed labs and configuration exercises to learn technologies needed to succeed on the exam.

There are no books available that can compete with the actual Cisco training courseware provided in this book! Prepare for CCDA certification while mastering the network design process Learn to characterize existing networks and determine

new customer requirements Develop appropriate network topologies for various environments Design device naming schemes and IP and IPX addressing schemes Understand how to select the best routing and bridging protocols and provision software features and hardware for LANs and WANs Learn how to create design documents and build prototypes and pilots Optimize your network with valuable information on PIX firewalls, router performance, ISDN, and Windows NT Improving network security based on the Cisco System instructor-led and self-study course available worldwide, Designing Cisco Networks teaches you how to become proficient in network design methodologies. Created for those seeking to attain CCDA certification, this book focuses on small- to medium-sized networks and provides a step-by-step process to follow when designing internetworks to ensure that all important issues are considered, resulting in optimal network design. By using this book you will be able to identify customer needs, design LAN and WAN network structures, create network management strategies, write design documents, and build and test prototypes and pilots. Filled with case studies, procedures, charts, and checklists, Designing Cisco Networks will help you understand how to analyze and solve existing network problems while building a framework that supports the functionality, performance, and scalability required of any given environment. Self-assessment through exercises and chapter-ending tests starts you down the path for attaining your CCDA certification.

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. The most complete guide to Cisco Catalyst(r) switch network design, operation, and configuration Master key foundation topics such as high-speed LAN technologies, LAN segmentation, bridging, the Catalyst command-line environment, and VLANs Improve the performance of your campus network by utilizing effective Cisco Catalyst design, configuration, and troubleshooting techniques Benefit from the most comprehensive coverage of Spanning-Tree Protocol, inc.

This is the eBook version of the printed book. Note that this eBook does not contain the practice test software that accompanies the print book. Trust the best selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. Master CCIE Routing and Switching 4.0 blueprint exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with Exam Preparation Tasks CCIE Routing and Switching Certification Guide, Fourth Edition, is a best-of-breed Cisco® exam study guide that focuses specifically on the objectives for the CCIE® Routing and Switching written exam. Well-respected networking professionals Wendell Odom, Rus Healy, and Denise Donohue share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner,

focusing on increasing your understanding and retention of exam topics. CCIE Routing and Switching Certification Guide, Fourth Edition, presents you with an organized test preparation routine through the use of proven series elements and techniques. “Do I Know This Already?” quizzes open each chapter and allow you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks sections help drill you on key concepts you must know thoroughly. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. CCIE Routing and Switching Certification Guide, Fourth Edition, is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. The official study guide helps you master all the topics on the CCIE Routing and Switching written exam, including: Bridging and LAN switching IP addressing, IP services, TCP, UDP, and application protocol details Layer 3 forwarding concepts EIGRP, OSPF, and BGP routing protocols Quality of service Frame Relay MPLS IP multicast IPv6 Router and switch security Troubleshooting This volume is part of the Certification Guide Series from Cisco Press®. Books in this series provide officially developed exam preparation materials that offer assessment, review, and practice to help Cisco Career Certification candidates identify weaknesses, concentrate their study efforts, and enhance their confidence as exam day nears.

Cisco LAN Switching Configuration Handbook Second Edition A concise reference for implementing the most frequently used features of the Cisco Catalyst family of switches Steve McQuerry, CCIE® No. 6108 David Jansen, CCIE No. 5952 David Hucaby, CCIE No. 4594 Cisco LAN Switching Configuration Handbook, Second Edition, is a quick and portable reference guide to the most commonly used features that can be configured on Cisco® Catalyst® switches. Written to be used across all Catalyst IOS platforms, the book covers general use of Cisco IOS®, followed by a series of chapters that provide design and configuration guidelines. Each chapter starts with common design overviews and then describes the configuration of management features. Coverage includes Layer 2, Layer 3, multicast, high availability, and traffic management configurations. This book is organized by groups of common features, with sections marked by shaded tabs for quick reference. Information on each feature is presented in a concise format, with background, configuration, and example components. The format is organized for easy accessibility to commands and their proper usage, saving you hours of research time. From the first page, the authors zero in on quick facts, configuration steps, and explanations of configuration options in each Cisco Catalyst switch feature. The quick reference format allows you to easily locate just the information you need without having to search through thousands of pages of documentation, helping you get your switches up and running quickly and smoothly. Whether you are looking for a handy, portable reference to more easily configure Cisco Catalyst switches in the field, or you are preparing for CCNA®, CCNP®, or CCIE® certification, you will find Cisco LAN Switching Configuration Handbook, Second Edition, to be an essential resource. Steve McQuerry, CCIE No. 6108, is a technical

solutions architect with Cisco focused on data center solutions. Steve works with enterprise customers in the midwestern United States to help them plan their data center architectures. David Jansen, CCIE No. 5952, is a technical solutions architect (TSA) with Cisco focused on Data Center Architectures at Cisco. David has more than 20 years of experience in the IT industry. David Hucaby, CCIE No. 4594, is a lead network engineer for the University of Kentucky, where he works with healthcare networks based on the Cisco Catalyst, ASA/PIX/FWSM security, and VPN product lines. Implement switched campus network designs Configure switch prompts, IP addresses, passwords, switch modules, file management, and administrative protocols Understand how Layer 3 interfaces are used in a switch Configure Ethernet, Fast Ethernet, Gigabit Ethernet, and EtherChannel interfaces Implement VLANs, trunking, and VTP Operate, configure, and tune Spanning Tree Protocol (STP) Handle multicast traffic and interact with multicast routers Streamline access to server and firewall farms with accelerated server load balancing Deploy broadcast suppression, user authentication, port security, and VLAN access lists Configure switch management features Implement QoS and high availability features Transport voice traffic with specialized voice gateway modules, inline power, and QoS features 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.

Advanced MPLS Design and Implementation enables you to: Understand MPLS through a detailed analysis of MPLS architecture and operation Design and implement packet-based MPLS Virtual Private Networks (VPNs) using label switching routers (LSRs) Design and implement ATM-based MPLS VPNs using WAN-switched ATM LSRs Implement MPLS traffic engineering on your core network and optimize traffic flows dynamically Implement MPLS QoS and provide hard service guarantees with multiple classes of service Acquire practical design and implementation knowledge of real-world MPLS VPNs, TE, and QoS through case studies and configuration examples Multiprotocol Label Switching (MPLS), intended for internetwork engineers and administrators who are responsible for designing, implementing, and supporting service provider or enterprise MPLS backbone networks, is a highly scalable, high-performance forwarding technology that has multiple applications in the service provider and enterprise environment. Use this book, which contains MPLS theory, design, configuration, and various case studies, as a reference and a guide for designing, implementing, and supporting an MPLS network. Even if you are not using Cisco equipment, this book can increase your awareness and understanding of MPLS technology, as well as provide you with detailed design concepts and rules for building scalable MPLS networks.

The ultimate DSL deployment guides and reference Teaches the reader how to design and implement the network to offer services such as voice, video, and data Explains the various access and core architectures for xDSL technologies Details how to do mass provisioning and how to manage an end-to-end network Includes case studies that depict some of the most common deployed architectures, how they evolved, problems they faced, and how they were overcome Design and Implementation of DSL-Based Access Solutions addresses various architectures for DSL-based networks. It focuses on how to design and implement an end-to-end solution for service providers, considering various business models such as retail, wholesale, VPN, etc. This book depicts the different architectures, and helps you understand the key design principles in deploying them. It covers both access encapsulations such as bridging, PPPoA, PPPoE, and routing, as well as core architectures such as IP, L2TP, MPLS/VPN, and ATM. Because it focuses on end-to-end solutions, Design and Implementation of DSL-Based Access Solutions talks about how to do mass provisioning of subscribers and how to manage networks in the most efficient way. It also includes discussions of real-life deployments, their design-related issues, and their implementation.

Praised in its first edition for its approachable style and wealth of information, this new edition provides readers a deep understanding of

exterior routing protocols, teaches how to implement them using Cisco routers, and brings readers up-to-date on the latest enhancements and advanced IP routing issues. Routing TCP/IP, Volume II, Second Edition covers TCP connections, message states, path attributes, interior routing protocol interoperation, neighbor connections, and much more. The authors present crucial knowledge for every professional who wants to manage routers to support network growth and change. The routing and switching techniques they cover are fundamental to all modern networks, and form the foundation of all CCIE tracks - making this book an outstanding resource for those seeking to earn Cisco's elite CCIE credential. While this book's "practical" aspects focus on Cisco's IOS, the authors illuminate concepts and issues that apply to any routing platform - making this a superb general reference for network professionals in any environment.

Fast answers and reliable solutions for all widely-used Cisco Catalyst switch features - all in one time-saving guide! * *Organized for maximum efficiency: describes actual commands and options in the sequence they should be used. *Saves hours that would otherwise be spent searching Cisco documentation *Covers powerful new Catalyst features including blade switch configuration and VSS technology.

*Provides 'at-a-glance' illustrations for quick reference and double-checking. Cisco Catalyst switches are a common ingredient in many campus, metropolitan, enterprise, and service provider networks. They are, however, complex devices that demand careful configuration. Locating reliable configuration command information can require extensive, time-consuming research. The solution: Cisco Catalyst Switch Configuration Handbook, Second Edition: a quick, portable, day-to-day reference guide to the most widely used Catalyst features and configurations. Designed to support all Catalyst IOS platforms, this book covers general use of Catalyst s IOS and rommonitor modes, and presents detailed design and configuration guidelines. This edition is thoroughly updated for powerful new Catalyst features, including blade switch configuration and the Catalyst 6500's new VSS technology. This book is organized for maximum efficiency. Related features are covered together, and features and options are covered in the sequence in which they are typically used. Shaded tabs mark each section for quick reference. Information on each feature is presented in a concise one- or two-page format, with sections presenting background, configuration information, and examples. Each chapter begins with common design overviews and best practices.

The definitive guide to designing and deploying Cisco IP multicast networks Clear explanations of the concepts and underlying mechanisms of IP multicasting, from the fundamentals to advanced design techniques Concepts and techniques are reinforced through real-world network examples, each clearly illustrated in a step-by-step manner with detailed drawings Detailed coverage of PIM State Rules that govern Cisco router behavior In-depth information on IP multicast addressing, distribution trees, and multicast routing protocols Discussions of the common multimedia applications and how to deploy them Developing IP Multicast Networks, Volume I, covers an area of networking that is rapidly being deployed in many enterprise and service provider networks to support applications such as audio and videoconferencing, distance learning, and data replication. The concepts used in IP multicasting are unlike any other network protocol, making this book a critical tool for networking professionals who are implementing this technology. This book provides a solid foundation of basic IP multicast concepts, as well as the information needed to actually design and deploy IP multicast networks. Using examples of common network topologies, author Beau Williamson discusses the issues that network engineers face when trying to manage traffic flow. Developing IP Multicast Networks, Volume I, includes an in-depth discussion of the PIM protocol used in Cisco routers and detailed coverage of the rules that control the creation and maintenance of Cisco mroute state entries. The result is a comprehensive guide to the development and deployment of IP multicast networks using Cisco routers and switches.

Whether the reader is the biggest technology geek or simply a computer enthusiast, this integral reference tool can shed light on the terms

that'll pop up daily in the communications industry. (Computer Books - Communications/Networking)

Prepare for the new CCSP SECUR 642-501 exam with the only Cisco authorized SECUR preparation guide available The only SECUR guide developed in conjunction with Cisco, providing the most accurate and up-to-date topical coverage Electronic testing engine on CD-ROM provides flexible assessment features and feedback on areas for further study Modular writing style and other features from the Exam Certification Guide series provide candidates with superior learning and topic retention This title is primarily intended for networking professionals pursuing the CCSP certification and preparing for the SECUR 642-501 exam, one of five CCSP component exams. The materials, however, appeal to an even broader range of networking professionals seeking a better understanding of the policies, strategies, and techniques of network security. The exam and course, Securing Cisco IOS Networks (SECUR), cover a broad range of networking security topics, providing an overview of the critical components of network security. The other component exams of CCSP then focus on specific areas within that overview, like PIX and VPNs, in even greater detail. CCSP SECUR Exam Certification Guide (CCSP Self-Study) combines leading edge coverage of security concepts with all the proven learning and exam preparation features of the Exam Certification Guide series from Cisco Press, including the CD-ROM testing engine with more than 200 questions, pre- and post-chapter quizzes and a modular book and CD organization that breaks concepts down into smaller, easy-to-absorb blocks of information. Specific coverage includes security policies, security threat evaluation, AAA (authentication, authorization, and accounting), NAS with AAA, Cisco Secure ACS, IOS firewall features, encryption technologies, IPSec, PIX Firewall configuration, and integration with VPN solutions from Cisco Secure Policy Manager. 158720072411212003

Field-proven MPLS designs covering MPLS VPNs, pseudowire, QoS, traffic engineering, IPv6, network recovery, and multicast Understand technology applications in various service provider and enterprise topologies via detailed design studies Benefit from the authors' vast experience in MPLS network deployment and protocol design Visualize real-world solutions through clear, detailed illustrations Design studies cover various operator profiles including an interexchange carrier (IXC), a national telco deploying a multiservice backbone carrying Internet and IP VPN services as well as national telephony traffic, an international service provider with many POPs all around the globe, and a large enterprise relying on Layer-3 VPN services to control communications within and across subsidiaries Design studies are thoroughly explained through detailed text, sample configurations, and network diagrams Definitive MPLS Network Designs provides examples of how to combine key technologies at the heart of IP/MPLS networks. Techniques are presented through a set of comprehensive design studies. Each design study is based on characteristics and objectives common to a given profile of network operators having deployed MPLS and discusses all the corresponding design aspects. The book starts with a technology refresher for each of the technologies involved in the design studies. Next, a series of design studies is presented, each based on a specific hypothetical network representative of service provider and enterprise networks running MPLS. Each design study chapter delivers four elements. They open with a description of the network environment, including the set of supported services, the network topology, the POP structure, the transmission facilities, the basic IP routing design, and possible constraints. Then the chapters present design objectives, such as optimizing bandwidth usage. Following these are details of all aspects of the network design, covering VPN, QoS, TE, network recovery,

and—where applicable—multicast, IPv6, and pseudowire. The chapters conclude with a summary of the lessons that can be drawn from the design study so that all types of service providers and large enterprise MPLS architects can adapt aspects of the design solution to their unique network environment and objectives. Although network architects have many resources for seeking information on the concepts and protocols involved with MPLS, there is no single resource that illustrates how to design a network that optimizes their benefits for a specific operating environment. The variety of network environments and requirements makes it difficult to provide a one-size-fits-all design recommendation. Definitive MPLS Network Designs fills this void. “This book comes as a boon to professionals who want to understand the power of MPLS and make full use of it.” -Parantap Lahiri, Manager, IP Network Infrastructure Engineering, MCI Includes a FREE 45-Day Online Edition 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.

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. The most complete guide to Cisco Catalyst(r) switch network design, operation, and configuration Master key foundation topics such as high-speed LAN technologies, LAN segmentation, bridging, the Catalyst command-line environment, and VLANs Improve the performance of your campus network by utilizing effective Cisco Catalyst design, configuration, and troubleshooting techniques Benefit from the most comprehensive coverage of Spanning-Tree Protocol, including invaluable information on troubleshooting common Spanning Tree problems Master trunking concepts and applications, including ISL, 802.1Q, LANE, and MPOA Understand when and how to utilize Layer 3 switching techniques for maximum effect Understand Layer 2 and Layer 3 switching configuration with the Catalyst 6000 family, including coverage of the powerful MSFC Native IOS Mode Cisco LAN Switching provides the most comprehensive coverage of the best methods for designing, utilizing, and deploying LAN switching devices and technologies in a modern campus network. Divided into six parts, this book takes you beyond basic switching concepts by providing an array of proven design models, practical implementation solutions, and troubleshooting strategies. Part I discusses important foundation issues that provide a context for the rest of the book, including Fast and Gigabit Ethernet, routing versus switching, the types of Layer 2 switching, the Catalyst command-line environment, and VLANs. Part II presents the most detailed discussion of Spanning-Tree Protocol in print, including common problems, troubleshooting, and enhancements, such as PortFast, UplinkFast, BackboneFast, and PVST+. Part III examines the critical issue of trunk connections, the links used to carry multiple VLANs through campus networks. Entire chapters are dedicated to LANE and MPOA. Part IV addresses advanced features, such as Layer 3 switching, VTP, and CGMP and IGMP. Part V covers real-world campus design and implementation issues, allowing you to benefit from the collective advice of many LAN switching experts. Part VI discusses issues specific to the Catalyst 6000/6500 family of switches, including the powerful Native IOS Mode of Layer 3 switching. Several features in Cisco LAN Switching are designed to reinforce concepts covered in the book and to help you prepare for the CCIE exam. In addition to the practical discussion of advanced switching issues, this book also contains case studies that highlight real-world design,

implementation, and management issues, as well as chapter-ending review questions and exercises. 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.

Learn the Basics of LAN Switching and study valuable network switching reference materials.

CCIE Routing and Switching v4.0 Troubleshooting Practice Labs presents you with two full troubleshooting lab scenarios in exam style format to echo the real CCIE Routing and Switching v4.0 lab exam. This publication gives you the opportunity to put into practice your own extensive theoretical knowledge of subjects to find out how they interact with each other on a larger complex scale. Each section has an “Ask the Proctor” section list of questions that helps provide clarity and maintains direction to ensure you do not give up and check the answers directly if you find a task too challenging. After each lab, this eBook lets you compare configurations and routing tables with the required answers. You can also run through a lab de-brief, view configurations, and cut and paste configs into your own lab equipment for testing and verification. The point scoring for each question lets you know if you passed or failed each lab. This extensive set of practice labs that sell for hundreds of dollars elsewhere help you make sure you are fully prepared for the grueling CCIE lab exam experience.

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