

## Campus Network For High Availability Design Guide Cisco

As a final exam preparation tool, the CCNP Switch Quick Reference provides a concise review of all objectives on the new CCNP Switch exam (642-813). This eBook provides you with detailed, graphical-based information, highlighting only the key topics in cram-style format. With this document as your guide, you will review topics on campus network design, advanced spanning tree, virtual LANs (VLAN) and inter-VLAN routing, high availability, wireless LANs, voice and video, and campus network security. This fact-filled Quick Reference allows you to get all-important information at a glance, helping you to focus your study on areas of weakness and to enhance memory retention of essential exam concepts.

Whether your network is a complex carrier or just a few machines supporting a small enterprise, JUNOS High Availability will help you build reliable and resilient networks that include Juniper Networks devices. With this book's valuable advice on software upgrades, scalability, remote network monitoring and management, high-availability protocols such as VRRP, and more, you'll have your network uptime at the five, six, or even seven nines -- or 99.99999% of the time. Rather than focus on "greenfield" designs, the authors explain how to intelligently modify multi-vendor networks. You'll learn to adapt new devices to existing protocols and platforms, and deploy continuous systems even when reporting scheduled downtime. JUNOS High Availability will help you save time and money. Manage network equipment with Best Common Practices Enhance scalability by adjusting network designs and protocols Combine the IGP and BGP networks of two merging companies Perform network audits Identify JUNOS scripting techniques to maintain high availability Secure network equipment against breaches, and contain DoS attacks Automate network configuration through specific strategies and tools This book is a core part of the Juniper Networks Technical Library™.

Learn about network security, including the threats and the ways a network is protected from them. The book also covers firewalls, viruses and virtual private networks.

Companies and institutions depend more than ever on the availability of their Information Technology, and most mission critical business processes are IT-based. Business Continuity is the ability to do business under any circumstances and is an essential requirement faced by modern companies. Both concepts - High Availability and Disaster Recovery - are realized by redundant systems. This book presents requirements, concepts, and realizations of redundant systems on all abstraction levels, and all given examples refer to UNIX and Linux Systems.

Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. · Master Cisco CCNA ICND2 200-105 exam topics · Assess your knowledge with chapter-opening quizzes ·

Review key concepts with exam-preparation tasks This is the eBook edition of CCNA Routing and Switching ICND2 200-105 Official Cert Guide. This eBook does not include the companion CD-ROM with practice exam that comes with the print edition. CCNA Routing and Switching ICND2 200-105 Official Cert Guide presents you with an organized test-preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. CCNA Routing and Switching ICND2 200-105 Official Cert Guide from Cisco Press enables you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Best-selling author and expert instructor Wendell Odom shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. 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 and part-ending exercises, which help you drill on key concepts you must know thoroughly · Troubleshooting sections, which help you master the complex scenarios you will face on the exam · 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, video instruction, and hands-on labs, this official study guide helps you master the concepts and techniques that ensure your exam success. This official study guide helps you master all the topics on the CCNA ICND2 exam, including · Ethernet LANs · IPv4 routing protocols · Wide area networks · IPv4 services: ACLs and QoS · IPv4 routing and troubleshooting · IPv6 · Network management, SDN, and cloud computing

The all-in-one guide to the what, why, and how of modern campus network design.

If you're ready to build a large network system, this handy excerpt from Ethernet: The Definitive Guide, Second Edition gets you up to speed on a basic building block: Ethernet switches.

Whether you're working on an enterprise or campus network, data center, or Internet service provider network, you'll learn how Ethernet switches function and how they're used in network designs. This brief tutorial also provides an overview of the most important features found in switches, from the basics to more advanced features found in higher-cost and specialized switches. Get an overview of basic switch operation, the spanning tree protocol, and switch performance issues Learn about switch management and some of the most widely used switch features Discover how a hierarchical design can help maintain stable network operations Delve into special-purpose switches, such as multi-layer, access, stacking, and wireless access-point switches Learn about advanced switch features designed for specific networking environments Dive deeper into switches, with a list of protocol and package documentation

bull; Review topics in the CCDA 640-861 DESGN exam for comprehensive exam readiness bull; Prepare with proven study tools like foundation summaries, and pre- and postchapter quizzes to ensure mastery of the subject matter bull; Get into test-taking mode with a CD-ROM testing engine containing over 200 questions that measure testing readiness and provide feedback on areas requiring further study

All network designers and administrators want their campus LANs to run efficiently. This book provides tips and techniques for using protocol analyzers and other tools to recognize problems for both Cisco and multiprotocol traffic patterns. \* Focuses on troubleshooting problems that arise from the Cisco routers inter-operating with many other network protocols \* Covers both legacy and cutting-edge technologies \*

Authors are respected in the field for their teaching and training development skills in network troubleshooting

Master OpenFlow concepts to improve and make your projects efficient with the help of Software-Defined Networking. About This Book Master the required platforms and tools to build network applications

with OpenFlow Get to grips with the updated OpenFlow and build robust SDN-based solutions An end-to-end thorough overview of open-source switches, controllers, and tools Who This Book Is For If you are a network/system administrator or a system engineer and would like to implement OpenFlow concepts and take Software-Defined Networking on your projects to the next level, then this book is for you. If you are aware of broad networking concepts, and are familiar with the day-to-day operation of computer networks, you will find this book very beneficial. What You Will Learn Explore Software-Defined Networking and activities around SDN/OpenFlow including OpenFlow messages Hardware and software implementations of OpenFlow switches and experiment with Mininet GUI Learn about the role of OpenFlow in cloud computing by configuring and setting up the Neutron and Floodlight OpenFlow controller plugins Simulate and test utilities, and familiarize yourself with OpenFlow soft switches, controllers, virtualization, and orchestration tools Enhance and build environments for Net App development by installing VM's and tools such as Mininet and Wireshark Learn about hardware and software switches and get a feel for active open-source projects around SDN and OpenFlow In Detail OpenFlow paves the way for an open, centrally programmable structure, thereby accelerating the effectiveness of Software-Defined Networking. Software-Defined Networking with OpenFlow, Second Edition takes you through the product cycle and gives you an in-depth description of the components and options that are available at each stage. The aim of this book is to help you implement OpenFlow concepts and improve Software-Defined Networking on your projects. You will begin by learning about building blocks and OpenFlow messages such as controller-to-switch and symmetric and asynchronous messages. Next, this book will take you through OpenFlow controllers and their existing implementations followed by network application development. Key topics include the basic environment setup, the Neutron and Floodlight OpenFlow controller, XORPlus OF13SoftSwitch, enterprise and affordable switches such as the Zodiac FX and HP2920. By the end of this book, you will be able to implement OpenFlow concepts and improve Software-Defined Networking in your projects. Style and approach This book is an easy-to-follow and pragmatic guide networking. Each topic adopts a logical approach and provides hints to help you build and deliver SDN Solutions efficiently.

As a final preparation tool providing a review of CCNP exam topics, the CCNP Quick Reference 2/e complements official Cisco curriculum, other books, or other exam preparatory material in a candidates preparation for the four CCNP exams. This concise guide provides you with detailed, graphical-based information, highlighting only the key topics on the latest CCNP exams in a review-style format. This fact-filled Quick Reference allows you to get all-important information at a glance, helping you to focus your study on areas of weakness and to enhance memory retention of important concepts. This book provides a comprehensive final review for candidates taking any of the CCNP exams. It steps through exam objectives one-by-one, providing concise and accurate review for all topics. Using this book, you will be able to easily and effectively review test objectives without having to wade through numerous books and documents for relevant content for final review.

Selecting MPLS VPN Services helps you analyze migration options, anticipate migration issues, and properly deploy IP/MPLS VPNs. Detailed configurations illustrate effective deployment while case studies present available migration options and walk you through the process of selecting the best option for your network. Part I addresses the business case for moving to an IP/MPLS VPN network, with a chapter devoted to the business and technical issues you should review when evaluating IP/MPLS VPN offerings from major providers. Part II includes detailed deployment guidelines for the technologies used in the IP/MPLS VPN.

CCNA ICND2 200-101 Official Cert Guide, Academic Edition, is a comprehensive textbook and study package for an intermediate-level networking course. This book has been completely revised to align to Cisco's new CCNA 200-101 ICND2 exam. Material is presented in a concise manner, focusing on increasing student's retention and recall of exam topics. The book is printed in four color, allowing students to benefit from carefully crafted figures that utilize color to convey concepts. Students will organize their study through the use of the consistent features in these chapters, including: Foundation Topics -- These sections make up the majority of the page count, explaining concepts, configurations, with emphasis on the theory and concepts, and with linking the theory to the meaning of the configuration commands. Key Topics -- Inside the Foundation Topics sections, every figure, table, or list that should absolutely be understood and remembered for the exam is noted with the words "Key Topic" in the margin. This tool allows the reader to quickly review the most important details in each chapter. Chapter-ending Summaries -- These bulleted lists provide a quick and concise review of the key topics covered in each chapter. Chapter-ending Review Questions -- Each chapter provides a set of multiple choice questions that help student's test their knowledge of the chapter concepts, including answers and full explanations. Chapter-ending Exercises -- Each chapter concludes with a series of exercises designed to help students increase their retention of the chapter content including key term reviews, key topic tables, command review exercises, and memory table exercises. Part Reviews -- This new edition includes a new part review feature that helps students consolidate their knowledge of concepts presented across multiple chapters. A new mind mapping exercise helps students build strong mental maps of concepts. A new exam bank of part review questions helps students test themselves with scenario-based questions that span multiple topics. In addition to these powerful chapter learning, review, and practice features, this book also contains several other features that make it a truly effective and comprehensive study package, including: A Getting Started chapter at the beginning of the book offer terrific advice for how to use the book features and build an effective study plan. The DVD contains over 60 minutes of video mentoring from the author on challenging topics such as OSPF, EIGRP, EIGRP Metrics, PPP, and CHAP. The book comes complete with the CCNA ICND2 Network Simulator Lite software, providing students with the opportunity to practice their hands-on command line interface skills with Cisco routers and switches. The 13 labs included for free with this product cover a range of EIGRP configuration and troubleshooting exercises. The Pearson IT Certification Practice Test software that comes with the book includes 4 full ICND2 exams and 4 full CCNA exams, providing tons of opportunities to assess and practice. Including the book review questions and part review questions, the exam bank includes more than 500 unique practice questions. A Final Preparation Chapter helps students review for final exams and prepare to take the official Cisco CCNA exams, if they want to achieve that certification. A Study Plan Template is included on the DVD to help students organize their study time.

Cisco Press has the only study guides approved by Cisco for the new CCNA certification. The new edition of the best-selling two-book, value-priced CCNA 200-301 Official Cert Guide Library includes updated content, new online practice exercises, and more than two hours of video training—PLUS the CCNA Network Simulator Lite Editions with 34 free Network Simulator labs (available on the companion web site). 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. This book covers all exam topics on the CCNA 200-301 exam. · Master Cisco CCNA 200-301 exam topics · Assess your knowledge with chapter-opening quizzes · Review key concepts with exam preparation tasks This is the eBook edition of the CCNA 200-301 Official Cert Guide Library. This eBook does not include access to the Pearson Test Prep practice exams that comes with the print edition. CCNA 200-301 Official Cert Guide Library is a comprehensive review and practice package for the latest CCNA exam and is the only self-study resource approved by Cisco. The two books contained in this package, CCNA 200-301 Official Cert Guide, Volume 1 and CCNA 200-301 Official Cert Guide, Volume 2, present complete reviews and a more challenging and realistic preparation experience. The books have been fully updated to refresh the content for the latest CCNA exam topics and to enhance certain key topics that are critical for exam success. Best-selling author Wendell Odom shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. 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 Key Topic tables, which help you drill on key concepts you must know thoroughly · A free copy of the CCNA 200-301 Network Simulator Lite software, complete with meaningful lab

exercises that help you hone your hands-on skills with the command-line interface for routers and switches · Links to a series of hands-on config labs developed by the author · Online, interactive practice exercises that help you enhance your knowledge · More than 2 hours of video mentoring from the author · An online, interactive Flash Cards application to help you drill on Key Terms by chapter · 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, hands-on labs, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. These official study guides help you master all the topics on the CCNA exams, including · Networking fundamentals · Implementing Ethernet LANs · Implementing VLANs and STP · IPv4 addressing and subnetting · IPv4 routing · Implementing OSPF · IPv6 addressing, subnetting, and routing · Wireless LANs · IP Access Control Lists · Security services · IP services · Network architecture · Network automation Companion Website: The companion website contains the CCNA Network Simulator Lite software, online practice exercises, and more than 2 hours of video training. Includes 34 free CCNA Network Simulator labs (available on the companion website): Volume 1 1. Configuring Local Usernames 2. Configuring Hostnames 3. Interface Status I 4. Interface Status II 5. Interface Status III 6. Interface Status IV 7. Configuring Switch IP Settings 8. Switch IP Address 9. Switch IP Connectivity I 10. Switch CLI Configuration Process I 11. Switch CLI Configuration Process II 12. Switch CLI Exec Mode 13. Setting Switch Passwords 14. Interface Settings I 15. Interface Settings II 16. Interface Settings III 17. Switch Forwarding I 18. Switch Security I 19. Switch Interfaces and Forwarding Configuration Scenario 20. Configuring VLANs Configuration Scenario 21. VLAN Troubleshooting Volume 2 1. ACL I 2. ACL II 3. ACL III 4. ACL IV 5. ACL V 6. ACL VI 7. ACL Analysis I 8. Named ACL I 9. Named ACL II 10. Named ACL III 11. Standard ACL Configuration Scenario 12. Extended ACL I Configuration Scenario 13. Extended ACL II Configuration Scenario CCNA Network Simulator Lite System Requirements: Windows system requirements (minimum): Windows 10 (32/64-bit), Windows 8.1 (32/64-bit), or Windows 7 (32/64 bit), 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor, 1 GB RAM (32-bit) or 2 GB RAM (64-bit), 16 GB available hard disk space (32-bit) or 20 GB (64-bit), DirectX 9 graphics device with WDDM 1.0 or higher driver, Adobe Acrobat Reader version 8 and above Mac system requirements (minimum) macOS 10.14, 10.13, 10.12, or 10.11, Intel core Duo 1.83 GHz, 512 MB RAM (1 GB recommended), 1.5 GB hard disk space, 32-bit color depth at 1024x768 resolution, Adobe Acrobat Reader version 8 and above CCNA 200-301 Official Cert Guide Library Companion Website Access interactive study tools on this book's companion website, including practice test software, video training, CCNA Network Simulator Lite software, memory table and config checklist review exercises, Key Term flash card application, a study planner, and more! To access the companion website, simply follow these steps: 1. Go to [www.ciscopress.com/register](http://www.ciscopress.com/register). 2. Enter the print book ISBN: (Volume 1: 9780135792735, Volume 2: 9781587147135). 3. Answer the security question to validate your purchase. 4. Go to your account page. 5. Click on the Registered Products tab. 6. Under the book listing, click on the Access Bonus Content link. If you have any issues accessing the companion website, you can contact our support team by going to <http://pearsonitp.ehelp.org>.

held from April 12 to 13, 2014 in Xi'an, China. The purpose of CSNS2014 is to provide a platform for researchers, engineers, and academicians, as well as industrial professionals, to present their research results and development on computer science and network security. The conference welcomes all the topics around Computer Science and Network Security. It provides enormous opportunities for the delegates to exchange new ideas and application experiences, to establish global business or research cooperation. The proceeding volume of CSNS2014 will be published by DEStech Publications. All the accepted papers have been selected according to their originality, structure, uniqueness and other standards of same importance by a peer-review group made up by 2–3 experts. The conference program is of great profoundness and diversity composed of keynote speeches, oral presentations and poster exhibitions. It is sincerely hoped that the conference would not only be regarded as a platform to provide an overview of the general situation in related area, but also a sound opportunity for academic communication and connection.

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.

Campus Network Architectures and Technologies begins by describing the service challenges facing campus networks, and then details the intent-driven campus network architectures and technologies of Huawei Cloud Campus Solution. After reading this book, you will have a comprehensive understanding of next-generation campus network solutions, technical implementations, planning, design, and other know-how. Leveraging Huawei's years of technical expertise and practices in the campus network field, this book systematically describes the use of technical solutions such as virtualization, big data, AI, and SDN in campus networks. You will be able to reconstruct campus networks quickly and efficiently utilizing this informative description. Additionally, this book provides detailed suggestions for campus network design and deployment based on Huawei's

extensive project implementation experience, assisting with the construction of automated and intelligent campus networks required to cope with challenges. This is a practical, informative, and easy-to-understand guide for learning about and designing campus networks. It is intended for network planning engineers, network technical support engineers, network administrators, and enthusiasts of campus network technologies. Authors Ningguo Shen is Chief Architect for Huawei's campus network solutions. He has approximately 20 years' experience in campus network product and solution design, as well as a wealth of expertise in network planning and design. Mr. Shen previously served as a system engineer for the campus switch, data center switch, and WLAN product lines, and led the design of Huawei's intent-driven campus network solution. Bin Yu is an Architect for Huawei's campus network solutions. He has 12 years' experience in campus network product and solution design, as well as extensive expertise in network planning and design and network engineering project implementation. Mr. Yu once led the design of multiple features across various campus network solutions. Mingxiang Huang is a Documentation Engineer for Huawei's campus network solutions. He has three years of technical service experience, and four years of expertise in developing campus network product documentation. Mr. Huang was previously in charge of writing manuals for Huawei router and switch products. He has authored many popular technical series, including Be an OSPF Expert, Insight into Routing Policies, and Story behind Default Routes. Hailin Xu is a Documentation Engineer for Huawei's campus network solutions. He has two years of marketing experience in smart campus solutions, and six years of expertise in developing network products and solution documentation. Extremely familiar with Huawei's campus network products and solutions, Mr. Xu was previously in charge of writing manuals for Huawei routers, switches, and campus network solutions. In addition, he has participated in smart campus marketing projects within such sectors as education, government, and real estate.

As data centers grow in size and complexity, enterprises are adopting server virtualization technologies such as VMware, VMotion, NIC teaming, and server clustering to achieve increased efficiency of resources and to ensure business resilience. However, these technologies often involve significant expense and challenges to deal with complex multisite interconnections and to maintain the high availability of network resources and applications. Interconnecting Data Centers Using VPLS presents Virtual Private LAN Service (VPLS) based solutions that provide high-speed, low-latency network and Spanning Tree Protocol (STP) isolation between data centers resulting in significant cost savings and a highly resilient virtualized network. The design guidance, configuration examples, and best practices presented in this book have been validated under the Cisco Validated Design (CVD) System Assurance program to facilitate faster, more reliable and more predictable deployments. The presented solutions include detailed information about issues that relate to large Layer 2 bridging domains and offer guidance for extending VLANs over Layer 3 networks using VPLS technology. Implementing this breakthrough Data Center Interconnect (DCI) strategy will evolve your network to support current server virtualization techniques and to provide a solid foundation for emerging approaches. The book takes you from the legacy deployment models for DCI, problems associated with extending Layer 2 networks, through VPN technologies, to various MST-, EEM-, and GRE-based deployment models and beyond. Although this book is intended to be read cover-to-cover, it is designed to be flexible and allow you to easily move between chapters to develop the solution most compatible with your requirements. Describes a variety of deployment models to effectively transport Layer 2 information, allowing your virtualization solution to operate effectively Explains benefits and trade-offs of various solutions for you to choose the solution most compatible with your network requirements to ensure business resilience Provides detailed design guidance and configuration examples that follow Cisco best practice recommendations tested within the CVD 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.

Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. Master Cisco CCNP SWITCH 300-115 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCNP Routing and Switching SWITCH 300-115 Official Cert Guide. This eBook does not include the companion CD-ROM with practice exam that comes with the print edition. CCNP Routing and Switching SWITCH 300-115 Official Cert Guide from Cisco Press enables you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Expert engineer David Hucaby shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete, official study package includes A test-preparation routine proven to help you pass the exam 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 The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports More than 60 minutes of personal video mentoring from the author on important exam topics 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. CCNP Routing and Switching SWITCH 300-115 Official Cert Guide is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit [www.cisco.com](http://www.cisco.com). The official study guide helps you master topics on the CCNP R&S SWITCH 300-115 exam, including: Enterprise campus design Switch operation Switch

port configuration VLANs, Trunks, and VLAN Trunking Protocol (VTP) Spanning Tree Protocol (STP), RSTP, and MSTP Protecting the STP topology Aggregating switch links Multilayer switching Configuring DHCP Logging switch activity and managing switches with SNMP Monitoring performance and traffic High availability Securing switched networks

Designing for Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Fourth Edition · Learn about the Cisco modular enterprise architecture · Create highly available enterprise network designs · Develop optimum Layer 3 designs · Examine advanced WAN services design considerations · Evaluate data center design considerations · Design effective modern WAN and data center designs · Develop effective migration approaches to IPv6 · Design resilient IP multicast networks · Create effective network security designs Designing for Cisco Network Service Architectures (ARCH) Foundation Learning Guide , Fourth Edition, is a Cisco-authorized, self-paced learning tool for CCDP foundation learning. This book provides you with the knowledge needed to perform the conceptual, intermediate, and detailed design of a network infrastructure that supports desired network solutions over intelligent network services to achieve effective performance, scalability, and availability. This book presents concepts and examples necessary to design converged enterprise networks. You learn additional aspects of modular campus design, advanced routing designs, WAN service designs, enterprise data center design, IP multicast design, and security design. Advanced and modern network infrastructure solutions, such as virtual private networks (VPN), Cisco Intelligent WAN (IWAN), and Cisco Application-Centric Infrastructure (ACI), are also covered. Chapter-ending review questions illustrate and help solidify the concepts presented in the book. Whether you are preparing for CCDP certification or CCDE certification, or simply want to gain a better understanding of designing scalable and reliable network architectures, you will benefit from the foundation information presented in this book. Designing for Cisco Network Service Architectures (ARCH) Foundation Learning 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 <https://learningnetwork.cisco.com>. Category: Cisco Certification Covers: CCDP ARCH 300-320

"Foundation learning for SWITCH 642-813"--P. 1, cover.

Switched Networks Companion Guide is the official supplemental textbook for the Switched Networks course in the Cisco® Networking Academy® CCNA® Routing and Switching curriculum. This course describes the architecture, components, and operations of a converged switched network. You will learn about the hierarchical network design model and how to configure a switch for basic and advanced functionality. By the end of this course, you will be able to troubleshoot and resolve common issues with Virtual LANs and inter-VLAN routing in a converged network. You will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network. The Companion Guide is designed as a portable desk reference to use anytime, anywhere to reinforce the material from the course and organize your time. The book's features help you focus on important concepts to succeed in this course: Chapter objectives—Review core concepts by answering the focus questions listed at the beginning of each chapter. Key terms—Refer to the lists of networking vocabulary introduced and highlighted in context in each chapter. Glossary—Consult the comprehensive Glossary more than 300 terms. Summary of Activities and Labs—Maximize your study time with this complete list of all associated practice exercises at the end of each chapter. Check Your Understanding—Evaluate your readiness with the end-of-chapter questions that match the style of questions you see in the online course quizzes. The answer key explains each answer. Related Title: Switched Networks Lab Manual ISBN-10: 1-58713-327-X ISBN-13: 978-1-58713-327-5 How To—Look for this icon to study the steps you need to learn to perform certain tasks. Interactive Activities—Reinforce your understanding of topics with all the different exercises from the online course identified throughout the book with this icon. Videos—Watch the videos embedded within the online course. Packet Tracer Activities—Explore and visualize networking concepts using Packet Tracer exercises interspersed throughout the chapters. Hands-on Labs—Work through all the course labs and Class Activities that are included in the course and published in the separate Lab Manual.

Now fully updated for the new Cisco SWITCH 300-115 exam, Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide is your Cisco® authorized learning tool for CCNP® or CCDP® preparation. Part of the Cisco Press Foundation Learning Series, it teaches you how to plan, configure, verify, secure, and maintain complex enterprise switching solutions using Cisco Catalyst® switches and Enterprise Campus Architecture. The authors show you how to build scalable multilayer switched networks, create and deploy global intranets, and perform basic troubleshooting in environments using Cisco multilayer switches for client hosts and services. They begin by reviewing basic switching concepts, network design, and campus network architecture. Next, they present in-depth coverage of spanning-tree, inter-VLAN routing, first-hop redundancy, network management, advanced switch features, high availability, and campus network security. Each chapter opens with a list of topics that clearly identify its focus. Each chapter ends with a summary of key concepts for quick study, as well as review questions to assess and reinforce your understanding. Throughout, configuration examples, and sample verification outputs illustrate critical issues in network operation and troubleshooting. This guide is ideal for all certification candidates who want to master all the topics covered on the SWITCH 300-115 exam. Serves as the official textbook for version 7 of the Cisco Networking Academy CCNP SWITCH course Covers basic switching terminology and concepts, and the unique features of Cisco Catalyst switch designs Reviews campus network design, including network structure, roles of Cisco Catalyst switches, and differences between Layer 2 and multilayer switches Introduces VLANs, VTP, Trunking, and port-channeling Explains Spanning Tree Protocol configuration

Presents concepts and modern best practices for interVLAN routing Covers first-hop redundancy protocols used by Cisco Catalyst switches Outlines a holistic approach to network management and Cisco Catalyst device security with AAA, NTP, 802.1x, and SNMP Describes how to use advanced features to improve campus network resiliency and availability Shows how to establish switch physical redundancy using Stackwise, VSS, or redundant supervisors Explains advanced security features

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

The authoritative, business-driven study resource for the tough CCDE Practical Exam CCDE Study Guide is written and reviewed by CCDE engineers and helps you to both improve your design skills and to study for and pass the CCDE exam. Network design is an art, combining broad technology knowledge and experience. This book covers a broad number of technologies, protocols and design options, and considerations that can bring these aspects together and show how they can be used and thought about based on different requirements and business goals. Therefore, this book does not attempt to teach foundational technology knowledge, instead each section: Highlights, discusses, and compares the limitations and advantages of the different design options in terms of scalability, performance, flexibility, availability, complexity, security, and so on to simplify the job and help you understand what technology, protocol, or design options should be selected and why, based on the business or application requirements or to fix a broken design that need to be optimized Covers design aspects of different protocols and technologies, and how they map with different requirements Highlights drivers toward using these technologies whether it is intended for enterprise or service provider network, depending on the topic and technology Using a business-driven approach, CCDE Study Guide helps you analyze business and technical requirements and develop network designs that are based on these business needs and goals, taking into account both the technical and non-technical design constraints. The various "scenario-based" design examples discussed in this book will help you craft design approaches and requirements analysis on such topics as converged enterprise network architectures, service provider network architectures, and data centers. The book also addresses high availability, IPv6, multicast, QoS, security, and network management design considerations, presenting you with an in-depth evaluation of a broad range of technologies and environments. Whether you are preparing for the CCDE exam or simply wish to gain better insight into the art of network design in a variety of environments, this book helps you learn how to think like an expert network designer as well as analyze and compare the different design options, principles, and protocols based on different design requirements. Master a business-driven approach to designing enterprise, service provider, and data center networks Analyze the design impact of business, functional, and application requirements Learn from scenario-based examples, including converged enterprise networks, service provider networks, and cloud-based data centers Overcome design limitations and fix broken designs Review design options and considerations related to Layer 2 and Layer 3 control plane protocols Build designs that accommodate new services and applications Consider design options for modern campus networks, including network virtualization Design WAN edge and Internet edge blocks in enterprise networks Review the architectural elements of a service provider-grade network Plan MPLS VPN network environments, including L2VPN and L3VPN Interconnect different networks or routing domains Design traditional, virtualized, and cloud-based data center networks Interconnect dispersed data center networks to protect business continuity Achieve appropriate levels of operational uptime and network resiliency Integrate IPv6, multicast, QoS, security, and network management into your designs

Networking for Big Data supplies an unprecedented look at cutting-edge research on the networking and communication aspects of Big Data. Starting with a comprehensive introduction to Big Data and its networking issues, it offers deep technical coverage of both theory and applications. The book is divided into four sections: introduction to Big Data, networking theory and design for Big Data, networking security for Big Data, and platforms and systems for Big Data applications. Focusing on key networking issues in Big Data, the book explains network design and implementation for Big Data. It examines how network topology impacts data collection and explores Big Data storage and resource

management. Addresses the virtual machine placement problem Describes widespread network and information security technologies for Big Data Explores network configuration and flow scheduling for Big Data applications Presents a systematic set of techniques that optimize throughput and improve bandwidth for efficient Big Data transfer on the Internet Tackles the trade-off problem between energy efficiency and service resiliency The book covers distributed Big Data storage and retrieval as well as security, trust, and privacy protection for Big Data collection, storage, and search. It discusses the use of cloud infrastructures and highlights its benefits to overcome the identified issues and to provide new approaches for managing huge volumes of heterogeneous data. The text concludes by proposing an innovative user data profile-aware policy-based network management framework that can help you exploit and differentiate user data profiles to achieve better power efficiency and optimized resource management.

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

This is the eBook version of the print title. Note that the eBook does not provide access to 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 the CCNP® SWITCH 642-813 exam with this official study guide Assess your 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](http://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.

Authorized Self-Study Guide Designing Cisco Network Service Architectures (ARCH) Second Edition Foundation learning for ARCH exam 642-873 Keith Hutton Mark Schofield Diane Teare Designing Cisco Network Service Architectures (ARCH), Second Edition, is a Cisco®-authorized, self-paced learning tool for CCDP® foundation learning. This book provides you with knowledge of the latest developments in network design and technologies, including network infrastructure, intelligent network services, and converged network solutions. By reading this book, you will gain a thorough understanding of issues and considerations for fundamental infrastructure services, including security, network management, QoS, high availability, bandwidth use optimization through IP multicasting, and design architectures for network solutions such as voice over WLAN and e-commerce. Whether you are preparing for CCDP certification or simply want to gain a better understanding of modular campus and edge network design and strategic solutions for enterprise networks such as storage area networking, virtual private networking, advanced addressing and routing, and data centers, you will benefit from the foundation information presented in this book. Designing Cisco Network Service Architectures (ARCH), Second Edition, is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning,

and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit [www.cisco.com/go/authorizedtraining](http://www.cisco.com/go/authorizedtraining). Keith Hutton is a lead architect for Bell Canada in the enterprise customer space. Keith still retains his certified Cisco instructor accreditation, as well as the CCDP, CCNP®, and CCIP® certifications. Mark Schofield has been a network architect at Bell Canada for the past six years. During the past five years, he has been involved in the design, implementation, and planning of large national networks for Bell Canada's federal government customers. Diane Teare is a professional in the networking, training, project management, and e-learning fields. She has more than 20 years of experience in designing, implementing, and troubleshooting network hardware and software, and has been involved in teaching, course design, and project management. Learn about the Cisco SONA framework, enterprise campus architecture, and PPDIOO network life-cycle approach Review high availability designs and implement optimal redundancy Plan scalable EIGRP, OSPF, and BGP designs Implement advanced WAN services Evaluate design considerations in the data center core, aggregation, and access layers Design storage area networks (SANs) and extend the SAN with various protocols Design and tune an integrated e-commerce architecture Integrate firewall, NAC, and intrusion detection/prevention into your network design Design IPsec and SSL remote access VPNs Deploy IP multicast and multicast routing Incorporate voice over WLAN in the enterprise network Utilize the network management capabilities inherent in Cisco IOS® software This volume is in the Certification Self-Study Series offered by Cisco Press®. Books in this series provide officially developed self-study solutions to help networking professionals understand technology implementations and prepare for the Cisco Career Certifications examinations. Category: Network Design Covers: ARCH exam 642-873

"This course discusses the WAN technologies and network services required by converged applications in a complex network. The course allows you to understand the selection criteria of network devices and WAN technologies to meet network requirements. You will learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. You will also develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a complex network."--Back cover.

Cisco Press is the Official publisher for New CCNA Routing and Switching Certification. The New Edition of this Best-Selling Official Cert Guide includes Updated Content, and 60 Minutes of Video Training -- PLUS the CCNA Network Simulator Lite Edition with lab exercises. Cisco CCNA Routing and Switching ICND2 200-101 Official Cert Guide from Cisco Press enables you to succeed on the exam the first time. Best-selling author and expert instructor Wendell Odom shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This is the eBook version of the print title. Note that the eBook does not provide access to the practice test software that accompanies the print book. Access to the personal video mentoring and simulator lite software is available through product registration at Cisco Press; or see instructions in back pages of your eBook. 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 and part-ending exercises, which help you drill on key concepts you must know thoroughly Troubleshooting sections, which help you master the complex scenarios you will face on the exam A free copy of the CCNA ICND2 200-101 Network Simulator Lite software, complete with meaningful lab exercises that help you hone your hands-on skills with the command-line interface for routers and switches More than 60 minutes of video mentoring from the author A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time The official study guide helps you master all the topics on the CCNA exam, including Spanning Tree Protocol (STP) Troubleshooting LAN switching IPv4 routing VPNs OSPF and EIGRP configuration and troubleshooting Wide area networks and Frame Relay IPv6 implementation and troubleshooting Network management Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, video instruction, and hands-on labs, this official study guide helps you master the concepts and techniques that ensure your exam success. Wendell Odom, CCIE® No. 1624, is the most respected author of Cisco networking books in the world. His past titles include books on the entry-level Cisco certifications (CCENT and CCNA), the more advanced CCNP, and the industry-renowned CCIE. His books are known for their technical depth and accuracy. Wendell has worked as a network engineer, consultant, instructor, course developer, and book author, and he has produced videos, software, and blogs related to Cisco certifications. CCENT ICND1 Network Simulator Lite minimum system requirements: Microsoft Windows XP (SP3), Windows Vista (32-bit/64-bit) with SP1, Windows 7 (32-bit/64-bit) or Windows 8 (32-bit/64-bit, x86 processors), Mac OS X 10.6, 10.7, or 10.8 Intel Pentium III 1GHz or faster processor 512 MB RAM (1GB recommended) 1 GB hard disk space 32-bit color depth at 1024x768 resolution Adobe Acrobat Reader version 8 and above Other applications installed during installation: Adobe AIR 3.6.0 Captive JRE 6 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.

Migrate to Intent-Based Networking—and improve network manageability, cost, agility, security, and simplicity With Intent-Based Networking (IBN), you can create networks that capture and automatically activate business intent, assure that your network responds properly, proactively detect and contain security threats, and remedy network issues before users even notice. Intent-Based Networking makes networks far more valuable, but few organizations have the luxury of building them from the ground up. In this book, leading expert Pieter-Jans Nefkens presents a unique four-phase approach to preparing and transforming campus network infrastructures, architectures, and organization—helping you gain maximum value from IBN with minimum disruption and cost. The author reviews the problems IBN is intended to solve, and illuminates its technical, business, and cultural

implications. Drawing on his pioneering experience, he makes specific recommendations, identifies pitfalls, and shows how to overcome them. You'll learn how to implement IBN with the Cisco Digital Network Architecture and DNA Center and walk through real-world use cases. In a practical appendix, Nefkens even offers detailed technical configurations to jumpstart your own transformation. Review classic campus network deployments and understand why they need to change Learn how Cisco Digital Network Architecture (DNA) provides a solid foundation for state-of-the-art next generation network infrastructures Understand "intent" and how it can be applied to network infrastructure Explore tools for enabling, automating, and assuring Intent-Based Networking within campus networks Transform to Intent-Based Networking using a four-phased approach: Identify challenges; Prepare for Intent; Design and Deploy; and Enable Intent Anticipate how Intent-Based Networking will change your enterprise architecture, IT operations, and business

Now fully updated for the new Cisco SWITCH 300-115 exam, *Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide* is your Cisco® authorized learning tool for CCNP® or CCDP® preparation. Part of the Cisco Press Foundation Learning Series, it teaches you how to plan, configure, verify, secure, and maintain complex enterprise switching solutions using Cisco Catalyst® switches and Enterprise Campus Architecture. The authors show you how to build scalable multilayer switched networks, create and deploy global intranets, and perform basic troubleshooting in environments using Cisco multilayer switches for client hosts and services. They begin by reviewing basic switching concepts, network design, and campus network architecture. Next, they present in-depth coverage of spanning-tree, inter-VLAN routing, first-hop redundancy, network management, advanced switch features, high availability, and campus network security. Each chapter opens with a list of topics that clearly identify its focus. Each chapter ends with a summary of key concepts for quick study, as well as review questions to assess and reinforce your understanding. Throughout, configuration examples, and sample verification outputs illustrate critical issues in network operation and troubleshooting. This guide is ideal for all certification candidates who want to master all the topics covered on the SWITCH 300-115 exam. Serves as the official textbook for version 7 of the Cisco Networking Academy CCNP SWITCH course Covers basic switching terminology and concepts, and the unique features of Cisco Catalyst switch designs Reviews campus network design, including network structure, roles of Cisco Catalyst switches, and differences between Layer 2 and multilayer switches Introduces VLANs, VTP, Trunking, and port-channeling Explains Spanning Tree Protocol configuration Presents concepts and modern best practices for interVLAN routing Covers first-hop redundancy protocols used by Cisco Catalyst switches Outlines a holistic approach to network management and Cisco Catalyst device security with AAA, NTP, 802.1x, and SNMP Describes how to use advanced features to improve campus network resiliency and availability Shows how to establish switch physical redundancy using Stackwise, VSS, or redundant supervisors Explains advanced security features.

*IPv6 for Enterprise Networks* The practical guide to deploying IPv6 in campus, WAN/branch, data center, and virtualized environments Shannon McFarland, CCIE® No. 5245 Muninder Sambi, CCIE No. 13915 Nikhil Sharma, CCIE No. 21273 Sanjay Hooda, CCIE No. 11737 *IPv6 for Enterprise Networks* brings together all the information you need to successfully deploy IPv6 in any campus, WAN/branch, data center, or virtualized environment. Four leading Cisco IPv6 experts present a practical approach to organizing and executing your large-scale IPv6 implementation. They show how IPv6 affects existing network designs, describe common IPv4/IPv6 coexistence mechanisms, guide you in planning, and present validated configuration examples for building labs, pilots, and production networks. The authors first review some of the drivers behind the acceleration of IPv6 deployment in the enterprise. Next, they introduce powerful new IPv6 services for routing, QoS, multicast, and management, comparing them with familiar IPv4 features and behavior. Finally, they translate IPv6 concepts into usable configurations. Up-to-date and practical, *IPv6 for Enterprise Networks* is an indispensable resource for every network engineer, architect, manager, and consultant who must evaluate, plan, migrate to, or manage IPv6 networks. Shannon McFarland, CCIE No. 5245, is a Corporate Consulting Engineer for Cisco serving as a technical consultant for enterprise IPv6 deployment and data center design with a focus on application deployment and virtual desktop infrastructure. For more than 16 years, he has worked on large-scale enterprise campus, WAN/branch, and data center network design and optimization. For more than a decade, he has spoken at IPv6 events worldwide, including Cisco Live. Muninder Sambi, CCIE No. 13915, is a Product Line Manager for Cisco Catalyst 4500/4900 series platform, is a core member of the Cisco IPv6 development council, and a key participant in IETF's IPv6 areas of focus. Nikhil Sharma, CCIE No. 21273, is a Technical Marketing Engineer at Cisco Systems where he is responsible for defining new features for both hardware and software for the Catalyst 4500 product line. Sanjay Hooda, CCIE No. 11737, a Technical Leader at Cisco, works with embedded systems, and helps to define new product architectures. His current areas of focus include high availability and messaging in large-scale distributed switching systems. n Identify how IPv6 affects enterprises n Understand IPv6 services and the IPv6 features that make them possible n Review the most common transition mechanisms including dual-stack (IPv4/IPv6) networks, IPv6 over IPv4 tunnels, and IPv6 over MPLS n Create IPv6 network designs that reflect proven principles of modularity, hierarchy, and resiliency n Select the best implementation options for your organization n Build IPv6 lab environments n Configure IPv6 step-by-step in campus, WAN/branch, and data center networks n Integrate production-quality IPv6 services into IPv4 networks n Implement virtualized IPv6 networks n Deploy IPv6 for remote access n Manage IPv6 networks efficiently and cost-effectively 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.

*Authorized Self-Study Guide Designing for Cisco Internetwork Solutions (DESGN) Second Edition* Foundation learning for CCDA exam 640-863 *Designing for Cisco Internetwork Solutions (DESGN)*, Second Edition, is a Cisco®-authorized, self-paced learning tool for CCDA® foundation learning. This book provides you with the knowledge needed to

design enterprise networks. By reading this book, you will gain a thorough understanding of designing routed and switched network infrastructures and services within a modular architecture. In *Designing for Cisco Internetwork Solutions (DESGN), Second Edition*, you will study a broad range of network design principles and guidelines. You will learn about network design in the context of the Cisco Service-Oriented Network Architecture (SONA) framework and the Cisco Enterprise Architecture. Specific topics include campus and data center infrastructure, remote connectivity, IP addressing design, routing protocol selection, voice network design, wireless network design, and including security in your designs. An ongoing case study plus chapter-ending review questions illustrate and help solidify the concepts presented in the book. Whether you are preparing for CCDA certification or simply want to gain a better understanding of network design principles, you will benefit from the foundation information presented in this book. *Designing for Cisco Internetwork Solutions (DESGN), Second Edition*, is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit [www.cisco.com/go/authorizedtraining](http://www.cisco.com/go/authorizedtraining). Diane Teare is a professional in the networking, training, and e-learning fields. She has more than 20 years of experience in designing, implementing, and troubleshooting network hardware and software and has also been involved in teaching, course design, and project management. She has extensive knowledge of network design and routing technologies and is an instructor with one of the largest authorized Cisco Learning Partners.

Understand the Cisco vision of intelligent networks and the SONA framework  
Learn how to structure and modularize network designs within the Cisco Enterprise Architecture  
Design basic campus and data center networks  
Build designs for remote connectivity with WAN technologies  
Create IPv4 addressing schemes  
Understand IPv6 design  
Select the appropriate routing protocol for various modules in the Cisco Enterprise Architecture  
Design basic VoIP and IP telephony networks  
Understand wireless design principles  
Build security into your network designs

This volume is in the Certification Self-Study Series offered by Cisco Press®. Books in this series provide officially developed self-study solutions to help networking professionals understand technology implementations and prepare for the Cisco Career Certifications examinations. Category: Cisco Press—Network Design  
Covers: CCDA Exam 640-863

Cisco TelePresence™ Systems (CTS) create live, face-to-face meeting experiences, providing a breakthrough virtual conferencing and collaboration experience that transcends anything previously achievable by videoconferencing. Although the business case for deploying CTS is compelling, implementing it requires advanced knowledge of the latest networking technologies, an attention to detail, and thorough planning. In this book, four leading CTS technical experts cover everything you need to know to successfully design and deploy CTS in your environment. The authors cover every element of a working CTS solution: video, audio, signaling protocols and call processing, LAN and WAN design, multipoint, security, inter-company connectivity, and much more. They deliver start-to-finish coverage of CTS design for superior availability, QoS support, and security in converged networks. They also present the first chapter-length design guide of its kind detailing the room requirements and recommendations for lighting, acoustics, and ambience within various types of TelePresence rooms. *Cisco Telepresence Fundamentals* is an indispensable resource for all technical professionals tasked with deploying CTS, including netadmins, sysadmins, audio/video specialists, VoIP specialists, and operations staff. This is the only book that:

- Introduces every component of a complete CTS solution and shows how they work together
- Walks through connecting CTS in real-world environments
- Demonstrates how to secure virtual meetings using Cisco firewalls and security protocols
- Includes a full chapter on effective TelePresence room design
- Walks through every aspect of SIP call signaling design, including both single-cluster and intercluster examples for use in a TelePresence environment
- Provides prequalification, room, and network path assessment considerations to help you anticipate and avoid problems

Tim Sziget, CCIE® No. 9794, technical leader within the Cisco® Enterprise Systems Engineering team, is responsible for defining Cisco TelePresence network deployment best practices. He also coauthored the Cisco Press book *End-to-End QoS Network Design*. Kevin McMenemy, senior manager of technical marketing in the Cisco TelePresence Systems Business Unit, has spent the past nine years at Cisco supporting IP videoconferencing, video telephony, and unified communications. Roland Saville, technical leader for the Cisco Enterprise Systems Engineering team, tests and develops best-practice design guides for Cisco TelePresence enterprise deployments. Alan Glowacki is a Cisco technical marketing engineer responsible for supporting Cisco TelePresence customers and sales teams. Use Cisco TelePresence Systems (CTS) to enhance global teamwork and collaboration, both within your own enterprise and with your customers, partners, and vendors. Understand how the various components of the Cisco TelePresence Solution connect and work together. Integrate CTS into existing LAN, enterprise, and service provider networks. Successfully design and deploy a global TelePresence network. Understand the importance of room dimensions, acoustics, lighting, and ambience and how to properly design the physical room environment. Provide the high levels of network availability CTS requires. Leverage the Cisco quality of service (QoS) tools most relevant to CTS network provisioning and deployment. Systematically secure CTS using TLS, dTLS, sRTP, SSH, and Cisco firewalls. This book is part of the Cisco Press® Fundamentals Series. Books in this series introduce networking professionals to new networking technologies, covering network topologies, sample deployment concepts, protocols, and management techniques. Category: IP Communications  
Covers: Cisco TelePresence Systems

& The revised edition of the all-time best-selling CCNP Switching book with new topical coverage & Master advanced switching techniques and practices & Prepare for the exam with the 200-plus question electronic testing engine on the enclosed CD-ROM & Learn CCNP Switching topics with proven learning tools from the Exam Certification Guide product line

[Copyright: 12abedfdb6de75548d7ee26c83535b9b](#)