Campus Network For High Availability Design Guide Cisco Pdf

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End-to-end Qos Network Design - Tim Szigeti 2005
Best-practice QoS designs for protecting voice, video, and critical data while mitigating network denial-of-service attacks Understand the service-level requirements of voice, video, and data applications Examine strategic QoS best practices, including Scavenger-class QoS tactics for DoS/worm mitigation Learn about QoS tools and the various interdependencies and caveats of these tools that can impact design considerations Learn how to protect voice, video, and data traffic using various QoS mechanisms Evaluate design recommendations for protecting voice, video, and multiple classes of data while mitigating DoS/worm attacks for the following network infrastructure architectures: campus LAN, private WAN, MPLS VPN, and IPSec VPN Quality of Service (QoS) has already proven itself as the enabling technology for the convergence of voice, video, and data networks. As business needs evolve, so do the demands for QoS. The need to protect critical applications via QoS mechanisms in business networks has escalated over the past few years, primarily due to the increased frequency and sophistication of denial-of-service (DoS) and worm attacks. End-to-End QoS Network Design is a detailed handbook for planning and deploying QoS solutions to address current business needs. This book goes beyond discussing available QoS technologies and considers detailed design examples that illustrate where, when, and how to deploy various QoS features to provide validated and tested solutions for voice, video, and critical data over the LAN, WAN, and VPN. The book starts with a brief background of network infrastructure evolution and the subsequent need for QoS. It then goes on to cover the various QoS features and tools currently available and comments on their evolution and direction. The QoS requirements of voice, interactive and streaming video, and multiple classes of data applications are presented, along with an overview of the nature and effects of various types of DoS and worm attacks. QoS best-practice design principles are introduced to show how QoS mechanisms can be strategically deployed end-to-end to address application requirements while mitigating network attacks. The next section focuses on how these strategic design principles are applied to campus LAN QoS design. Considerations and detailed design recommendations specific to the access, distribution, and core layers of an enterprise campus network are presented. Private WAN QoS design is discussed in the following section, where WAN-specific considerations and detailed QoS designs are presented for leased-lines, Frame Relay, ATM, ATM-to-FR Service Interworking, and ISDN networks. Branch-specific designs include Cisco® SAFE recommendations for using Network-Based Application Recognition (NBAR) for known-worm identification and policing. The final section covers Layer 3 VPN QoS design-for both MPLS and IPSec VPNs. As businesses are migrating to VPNs to meet their wide-area networking needs at lower costs, considerations specific to these topologies are required to be reflected

in their customer-edge QoS designs. MPLS VPN QoS design is examined from both the enterprise and service provider's perspectives. Additionally, IPSec VPN QoS designs cover site-to-site and teleworker contexts. Whether you are looking for an introduction to QoS principles and practices or a QoS planning and deployment guide, this book provides you with the expert advice you need to design and implement comprehensive QoS solutions.

CCNP BCMSN Exam Certification Guide - David Hucaby 2004

& 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

CCDE Study Guide - Marwan Al-shawi 2015

CCDE Study Guide is written and reviewed by CCDE engineers and helps students to both improve 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.

CCNA 200-301 Official Cert Guide, Volume 2 - Wendell Odom 2019-12-10

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, combined with CCNA 200-301 Official Cert Guide, Volume 1, covers all the 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 CCNA 200-301 Official Cert Guide, Volume 2. 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, Volume 2 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 200-301 Official Cert Guide, Volume 2 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 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 · The powerful Pearson Test Prep Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports · A free copy of the CCNA 200-301 Network Simulator, Volume 2 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 50 minutes 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. CCNA 200-301 Official Cert Guide, Volume 2, combined with CCNA 200-301 Official Cert Guide, Volume 1, walk you through all the exam topics found in the Cisco

200-301 exam. Topics covered in Volume 2 include · IP access control lists · Security services · IP services · Network architecture · Network automation Companion Website: Companion Website: The companion website contains CCNA Network Simulator Lite software, practice exercises, 50 minutes of video training, and other study resources. See the Where Are the Companion Files on the last page of your eBook file for instructions on how to access. In addition to the wealth of content, this new edition includes a series of free hands-on exercises to help you master several real-world configuration activities. These exercises can be performed on the CCNA 200-301 Network Simulator Lite, Volume 2 software included for free on the companion website that accompanies this book.

CCDA 200-310 Official Cert Guide - Anthony Bruno 2016-06-29

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 CCDA 200-310 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCDA 200-310 Official Cert Guide. This eBook does not include the practice exam that comes with the print edition. CCDA 200-310 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. “Do I Know This Already?” quizzes open each chapter and allow you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. CCDA 200-310 Official Cert Guide focuses specifically on the objectives for the newest Cisco CCDA DESGN exam. Expert networking consultants Anthony Bruno and Steve Jordan 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. Well-regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will allow you to succeed on the exam the first time. The official study guide helps you master all the topics on the new CCDA DESGN exam, including: Design methodologies, including PBM, network characterization, and top-down/bottom-up approaches Design objectives: modularity, hierarchy, scalability, resilience, fault domains Addressing and routing protocols in existing networks Enterprise network design: campus, enterprise, and branch Expanding existing networks: wireless, security, collaboration, virtualization, programmability, data centers, and more CCDA 200-310 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
http://www.cisco.com/web/learning/index.html

Cisco TelePresence Fundamentals - Tim Szigeti 2009-05-26

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 it’s 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 Szigeti, 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 McMenamy, 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

Connecting Networks Companion Guide - Cisco Networking Academy 2014

"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.

Designing Cisco Network Service Architectures (ARCH) Foundation Learning Guide - John Tiso 2011-10-31

Designing Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third 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, in order to achieve effective performance, scalability, and availability. By reading this book, you will gain a thorough understanding of how to apply solid Cisco network solution models and recommended design practices to provide viable, stable enterprise internetworking solutions. The book presents concepts and examples that are necessary to design converged enterprise networks. Advanced network infrastructure technologies, such as virtual private networks (VPNs) and other security solutions are also covered. Designing Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third Edition teaches you the latest development in network design and technologies, including network

infrastructure, intelligent network services, and converged network solutions. Specific topics include campus, routing, addressing, WAN services, data center, e-commerce, SAN, security, VPN, and IP multicast design, as well as network management. Chapter-ending review questions illustrate and help solidify the concepts presented in the book. Whether you are preparing for CCDP 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 Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third 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. John Tiso, CCIE No. 5162, CCDP is a Product Manager for Cisco Systems. He holds a B.S. Degree in Computer Science and Mathematics from Adelphi University and a Graduate Citation in Strategic Management from Harvard University. John is a published author, has served as a technical editor for Cisco Press, and has participated as a SME for the CCIE program. Prior to Cisco, he was a senior consultant and architect in the Cisco partner channel. · Learn about the Cisco Enterprise Architecture · Create highly available campus and data center network designs · Develop optimum Layer 3 designs · Examine advanced WAN services design considerations · Evaluate SAN design considerations · Deploy effective e-commerce module designs · Create effective security services and IPsec and SSL VPN designs · Design IP multicast networks · Understand the network management capabilities within Cisco IOS Software This book is in the Foundation Learning Guide Series. These guides are developed together with Cisco® as the only authorized, self-paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams. Category: Cisco Certification Covers: CCDP ARCH 642-874

Enterprise Network Testing - Andy Sholomon 2011-04-14

Enterprise Network Testing Testing Throughout the Network Lifecycle to Maximize Availability and Performance Andy Sholomon, CCIE® No. 15179 Tom Kunath, CCIE No. 1679 The complete guide to using testing to reduce risk and downtime in advanced enterprise networks Testing has become crucial to meeting enterprise expectations of near-zero network downtime. Enterprise Network Testing is the first comprehensive guide to all facets of enterprise network testing. Cisco enterprise consultants Andy Sholomon and Tom Kunath offer a complete blueprint and best-practice methodologies for testing any new network system, product, solution, or advanced technology. Sholomon and Kunath begin by explaining why it is important to test and how network professionals can leverage structured system testing to meet specific business goals. Then, drawing on their extensive experience with enterprise clients, they present several detailed case studies. Through real-world examples, you learn how to test architectural “proofs of concept,” specific network features, network readiness for use, migration processes, security, and more. Enterprise Network Testing contains easy-to-adapt reference test plans for branches, WANs/MANs, data centers, and campuses. The authors also offer specific guidance on testing many key network technologies, including MPLS/VPN, QoS, VoIP, video, IPsec VPNs, advanced routing (OSPF, EIGRP, BGP), and Data Center Fabrics. § Understand why, when, and how you should test your network § Use testing to discover critical network design flaws § Incorporate structured systems testing into enterprise architecture strategy § Utilize testing to improve decision-making throughout the network lifecycle § Develop an effective testing organization and lab facility § Choose and use test services providers § Scope, plan, and manage network test assignments § nLeverage the best commercial, free, and IOS test tools § Successfully execute test plans, including crucial low-level details § Minimize the equipment required to test large-scale networks § Identify gaps in network readiness § Validate and refine device configurations § Certify new hardware, operating systems, and software features § Test data center performance and scalability § Leverage test labs for hands-on technology training 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.

CCDE Study Guide - Marwan Al-shawi 2015-10-01

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

Designing for Cisco Network Service Architectures (ARCH) Foundation Learning Guide - Marwan Al-shawi 2016-12-30

As a Foundation Learning Guide, this book fully reflects the content of the newest Cisco CCDP ARCH course. Real-world scenarios illustrate key concepts; chapter learning objectives and summaries help focus study; and review questions help readers assess their knowledge.

Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide - Richard Froom 2015

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.

CCNA 200-301 Official Cert Guide Library - Wendell Odom 2020-02-05

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. 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.echelp.org.

Cisco CCNA Routing and Switching ICND 200-101 - Wendell Odom 2013

The Publisher regrets that the CD/DVD content for this title cannot be made available Online. Cisco Press is the official publisher for the New CCNA Routing and Switching Certification. The New Edition of this Best-Selling Official Cert Guide includes Updated Content, New Exercises, Enhanced Practice Exams, 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 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 The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports 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. This volume is part of the Official Cert Guide series from Cisco Press. Books in this series provide of ...

Top-down Network Design - Priscilla Oppenheimer 2004

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.

Packet Guide to Routing and Switching - Bruce Hartpence 2011-09

Go beyond layer 2 broadcast domains with this in-depth tour of advanced link and internetwork layer protocols, and learn how they enable you to expand to larger topologies. An ideal follow-up to Packet Guide to Core Network Protocols, this concise guide dissects several of these protocols to explain their structure and operation. This isn’t a book on packet theory. Author Bruce Hartpence built topologies in a lab as he wrote this guide, and each chapter includes several packet captures. You’ll learn about

protocol classification, static vs. dynamic topologies, and reasons for installing a particular route. This guide covers: Host routing—Process a routing table and learn how traffic starts out across a network Static routing—Build router routing tables and understand how forwarding decisions are made and processed Spanning Tree Protocol—Learn how this protocol is an integral part of every network containing switches Virtual Local Area Networks—Use VLANs to address the limitations of layer 2 networks Trunking—Get an indepth look at VLAN tagging and the 802.1Q protocol Routing Information Protocol—Understand how this distance vector protocol works in small, modern communication networks Open Shortest Path First—Discover why convergence times of OSPF and other link state protocols are improved over distance vectors

Data Center Fundamentals - Mauricio Arregoces 2003-12-04

Master the basics of data centers to build server farms that enhance your Web site performance Learn design guidelines that show how to deploy server farms in highly available and scalable environments Plan site performance capacity with discussions of server farm architectures and their real-life applications to determine your system needs Today's market demands that businesses have an Internet presence through which they can perform e-commerce and customer support, and establish a presence that can attract and increase their customer base. Underestimated hit ratios, compromised credit card records, perceived slow Web site access, or the infamous "Object Not Found" alerts make the difference between a successful online presence and one that is bound to fail. These challenges can be solved in part with the use of data center technology. Data centers switch traffic based on information at the Network, Transport, or Application layers. Content switches perform the "best server" selection process to direct users' requests for a specific service to a server in a server farm. The best server selection process takes into account both server load and availability, and the existence and consistency of the requested content. Data Center Fundamentals helps you understand the basic concepts behind the design and scaling of server farms using data center and content switching technologies. It addresses the principles and concepts needed to take on the most common challenges encountered during planning, implementing, and managing Internet and intranet IP-based server farms. An in-depth analysis of the data center technology with real-life scenarios make Data Center Fundamentals an ideal reference for understanding, planning, and designing Web hosting and e-commerce environments.

Network Security First-step - Thomas M. Thomas 2012

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.

Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide - Richard Froom 2015-04-20

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

Designing for Cisco Internetwork Solutions (DESGN) Foundation Learning Guide - Sean Wilkins 2011-07-25

Designing for Cisco Internetwork Solutions (DESGN) Foundation Learning Guide Third Edition Sean Wilkins Foundation learning for the CCDA DESGN 640-864 exam Designing for Cisco Internetwork Solutions (DESGN) Foundation Learning Guide, Third 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 involving LAN, WAN, and broadband access for businesses and organizations. Designing for Cisco Internetwork Solutions (DESGN) Foundation Learning Guide, Third Edition teaches you how to gather internetworking requirements, identify solutions, and design the network infrastructure and services to ensure basic functionality using the principles of hierarchical network design to structure and modularize a converged enterprise network design. Specific topics include understanding the design methodology; structuring and modularizing the network design; designing the Enterprise Campus, Enterprise Data Center, Enterprise Edge, and remote modules as needed; designing an addressing plan and selecting suitable routing protocols; designing basic voice transport across the network; designing a basic wireless solution; and evaluating security solutions. 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) Foundation Learning Guide, Third 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. · Understand network design methodologies and the lifecycle of a network · Learn how to structure and modularize network designs within the Cisco Network Architectures for the Enterprise · Design basic campus and data center networks · Build designs for remote connectivity with WAN technologies · Examine IPv4 and IPv6 addressing schemes · Select the appropriate routing protocols for various modules in the enterprise architecture · Evaluate security solutions for the network · Identify voice and video networking considerations · Understand design technologies and considerations when implementing a controller-based wireless network This book is in the Foundation Learning Guide Series. These guides are developed together with Cisco® as the only authorized, self-paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams.

Designing Cisco Network Service Architectures (ARCH) - Keith T. Hutton 2011-10-12

Designing Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third Edition, is a Cisco(R)-authorized, self-paced learning tool for CCDP(R) 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, in order to

achieve effective performance, scalability, and availability. By reading this book, you will gain a thorough understanding of how to apply solid Cisco network solution models and recommended design practices to provide viable, stable enterprise internetworking solutions. The book presents concepts and examples that are necessary to design converged enterprise networks. Advanced network infrastructure technologies, such as virtual private networks (VPNs) and other security solutions are also covered. Designing Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third Edition teaches you the latest development in network design and technologies, including network infrastructure, intelligent network services, and converged network solutions. Specific topics include campus, routing, addressing, WAN services, data center, e-commerce, SAN, security, VPN, and IP multicast design, as well as network management. Chapter-ending review questions illustrate and help solidify the concepts presented in the book. Whether you are preparing for CCDP 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 Cisco Network Service Architectures (ARCH) Foundation Learning Guide, Third 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. John Tiso, CCIE No. 5162, CCDP is a Product Manager for Cisco Systems. He holds a B.S. Degree in Computer Science and Mathematics from Adelphi University and a Graduate Citation in Strategic Management from Harvard University. John is a published author, has served as a technical editor for Cisco Press, and has participated as a SME for the CCIE program. Prior to Cisco, he was a senior consultant and architect in the Cisco partner channel. - Learn about the Cisco Enterprise Architecture - Create highly available campus and data center network designs - Develop optimum Layer 3 designs - Examine advanced WAN services design considerations - Evaluate SAN design considerations - Deploy effective e-commerce module designs - Create effective security services and IPsec and SSL VPN designs - Design IP multicast networks - Understand the network management capabilities within Cisco IOS Software This book is in the Foundation Learning Guide Series. These guides are developed together with Cisco(R) as the only authorized, self-paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams. Category: Cisco Certification Covers: CCDP ARCH 642-874

Cisco LAN Switching Configuration Handbook - Stephen McQuerry 2009-06-16

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.

CCNA Routing and Switching ICND2 200-105 Official Cert Guide - Wendell Odom 2016-06-29 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

CCNP SWITCH 642-813 Official Certification Guide - David Hucaby 2010-02-09

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. 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.

CCNA Routing and Switching 200-125 Official Cert Guide Library - Wendell Odom 2016-08-26

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Cisco Press has the only self-study guides approved by Cisco for the new CCENT and CCNA Routing and Switching certifications. The new edition of the best-selling two-book value priced CCNA Official Cert Guide Library includes updated content, new online practice exercises, more than 600 practice exam questions, and more than 2 hours of video training, plus the CCENT and CCNA Network Simulator Lite Editions with 43 free Network Simulator labs. CCNA Routing and Switching 200-125 Official Cert Guide Library is a comprehensive review and practice package for the latest CCNA exams and is the only self-study resource approved by Cisco. The two books contained in this package, CCENT/CCNA ICND1 100-105 Official Cert Guide and CCNA Routing and Switching ICND2 200-105 Official Cert Guide, present complete reviews and more challenging and realistic preparation experiences. 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 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 · The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports · A free copy of the CCNA ICND1 and ICND2 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 hone your knowledge · More than 2 hours of video mentoring from the author · A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies · Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, video instruction, and hands-on labs, these official study guides help 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 basic Ethernet LANs · Ethernet LANs: design, VLANs, and troubleshooting · IPv4 addressing and subnetting · Implementing IPv4 · IPv4 design and troubleshooting · IPv4 services: ACLs, NAT, and QoS · IPv4 routing protocols and routing · Wide area networks · IPv6 · Network management, SDN, and cloud computing

Cisco Field Manual - Dave Hucaby 2003

A complete, concise reference for implementing the most important features of the Cisco Catalyst family of switches Review detailed and comparative configuration steps for features of the COS and Cisco IOS Software operating systems Understand basic system and operating system management Configure Ethernet, EtherChannel, Token Ring, and ATM LANE interfaces Deploy VLANs, private VLANs, trunking, VTP, and dynamic port membership Understand STP operation, configuration, and tuning Configure and use Cisco Catalyst hardware for Layer 3 switching and redundancy Discover how Cisco Catalyst switches handle multicast traffic and interact with multicast routers Implement broadcast suppression, protocol filtering, user authentication, port security, and VLAN access lists Set up switches for logging, SNMP and RMON management, and port analysis Configure voice gateway modules, inline power, and QoS features needed to transport voice traffic Cisco Catalyst switches, a common ingredient in many campus, metropolitan, enterprise, and service provider networks, are complex devices that require many configuration steps for proper operation. Not only are the required commands difficult to remember, but locating reference material on them also requires extensive research that is both time- consuming and difficult to complete in the field. Cisco Field Manual: Catalyst Switch Configuration is a quick and portable reference guide to the most commonly used features that can be configured on Cisco Catalyst switches. Derived from the authors' notes about how to configure a variety of Cisco Catalyst features during the course of their preparation for the CCIE(r) exam, Cisco Field Manual: Catalyst Switch Configuration is an indispensable tool that helps you perform the most popular deployment tasks. From the first page, the authors zero in on quick facts, configuration steps, and explanations of configuration options in each Cisco Catalyst feature. The different variations of the Cisco Catalyst operating systems (COS and Cisco IOS(r) Software) are shown together for side-by-side comparison, making it easy to move from one Cisco Catalyst platform to another. The book presents concise implementation advice for families of Cisco Catalyst features, including configuration fundamentals, Layer 2 interface configuration, Layer 3 interface configuration, VLANs and trunking, Spanning Tree Protocol (STP), Layer 3 switching, multicast, server load balancing, access control, switch management, quality of service (QoS), and voice. Additional appendixes provide you with critical details on well-known ports and addresses, specialized switch modules, VLAN extension, and a cabling guide. The quick reference format allows you to easily locate just the information you need without searching through thousands of pages of documentation, saving you time and helping you to get the devices 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(r), CCNP(r), or CCIE certification, you will find Cisco Field Manual: Catalyst Switch Configuration to be an essential resource that will save you hours of research time.

Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide - Richard Froom 2010

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

Switched Networks Companion Guide - Cisco Networking Academy 2014

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.

Campus Network Design Fundamentals - Diane Teare 2006

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

Top-Down Network Design - Priscilla Oppenheimer 2010-08-24

Objectives The purpose of Top-Down Network Design, Third Edition, is to help you design networks that meet a customer’s business and technical goals. Whether your customer is another department within your own company or an external client, this book provides you with tested processes and tools to help you understand traffic flow, protocol behavior, and internetworking technologies. After completing this book, you will be equipped to design enterprise networks that meet a customer’s requirements for functionality, capacity, performance, availability, scalability, affordability, security, and manageability. Audience This book is for you if you are an internetworking professional responsible for designing and maintaining medium- to large-sized enterprise networks. If you are a network engineer, architect, or technician who has a working knowledge of network protocols and technologies, this book will provide you with practical advice on applying your knowledge to internetwork design. This book also includes useful information for consultants, systems engineers, and sales engineers who design corporate networks for clients. In the fast-paced presales environment of many systems engineers, it often is difficult to slow down and insist on a top-down, structured systems analysis approach. Wherever possible, this book includes shortcuts and assumptions that can be made to speed up the network design process. Finally, this book is useful for undergraduate and graduate students in computer

science and information technology disciplines. Students who have taken one or two courses in networking theory will find Top-Down Network Design, Third Edition, an approachable introduction to the engineering and business issues related to developing real-world networks that solve typical business problems. Changes for the Third Edition Networks have changed in many ways since the second edition was published. Many legacy technologies have disappeared and are no longer covered in the book. In addition, modern networks have become multifaceted, providing support for numerous bandwidth-hungry applications and a variety of devices, ranging from smart phones to tablet PCs to high-end servers. Modern users expect the network to be available all the time, from any device, and to let them securely collaborate with coworkers, friends, and family. Networks today support voice, video, high-definition TV, desktop sharing, virtual meetings, online training, virtual reality, and applications that we can't even imagine that brilliant college students are busily creating in their dorm rooms. As applications rapidly change and put more demand on networks, the need to teach a systematic approach to network design is even more important than ever. With that need in mind, the third edition has been retooled to make it an ideal textbook for college students. The third edition features review questions and design scenarios at the end of each chapter to help students learn top-down network design. To address new demands on modern networks, the third edition of Top-Down Network Design also has updated material on the following topics: ¿ Network redundancy ¿ Modularity in network designs ¿ The Cisco SAFE security reference architecture ¿ The Rapid Spanning Tree Protocol (RSTP) ¿ Internet Protocol version 6 (IPv6) ¿ Ethernet scalability options, including 10-Gbps Ethernet and Metro Ethernet ¿ Network design and management tools

Designing for Cisco Internetwork Solutions (DESGN) (Authorized CCDA Self-Study Guide) (Exam 640-863) - Diane Teare 2007-10-12

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. 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

Designing for Cisco Network Service Architectures (ARCH) Foundation Learning Guide - Marwan Al-shawi 2016-12-27

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

Deploying IPv6 Networks - Ciprian Popoviciu 2006-09

CCNA Routing and Switching ICND2 200-101 Official Cert Guide - Wendell Odom 2013-04-03

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.

Transforming Campus Networks to Intent-Based Networking - Pieter-Jan Nefkens 2019-12-23

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

Ethernet Switches - Charles E. Spurgeon 2013-04-01

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

Designing Cisco Network Service Architectures (ARCH) (Authorized Self-Study Guide) - Keith T. Hutton 2008-12-24

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. 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

Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide - Richard Froom 2010-06-21

Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide: Foundation learning for SWITCH 642-813 Richard Froom, CCIE No. 5102 Balaji Sivasubramanian Erum Frahim, CCIE No. 7549 Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide is a Cisco® authorized learning tool for CCNP® and CCDP® preparation. As part of the Cisco Press foundation learning series, this book covers how to plan, configure, and verify the implementation of complex enterprise switching solutions using the Cisco Campus Enterprise Architecture. The Foundation Learning Guide also covers secure integration of VLANs, WLANs, voice, and video into campus networks. Each chapter opens with the list of topics covered to clearly identify the focus of that chapter. At the end of each chapter, a summary and review questions provide you with an opportunity to assess and reinforce your understanding of the material. Throughout the book detailed explanations with commands, configurations, and diagrams serve to illuminate theoretical concepts. Implementing Cisco IP Switched Networks (SWITCH) Foundation Learning Guide is ideal for certification candidates who are seeking a tool to learn all the topics covered in the SWITCH 642-813 exam. - Serves as the official book for the Cisco Networking Academy CCNP SWITCH course - Provides a thorough presentation of the fundamentals of multilayer switched network design - Explains the implementation of the design features such as VLAN, Spanning Tree, and inter-VLAN routing in the multilayer switched environment - Explains how to implement high-availability technologies and techniques - Covers security features in a switched network - Presents self-assessment review questions, chapter topics, summaries, command syntax explanations, network diagrams, and configuration examples to facilitate effective studying This book is in the Foundation Learning Guide Series. These guides are developed together with Cisco® as the only authorized, self-paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams.

CCDA 640-864 Official Cert Guide - Anthony Bruno 2011-06-09

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. CCDA 640-864 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. Master Cisco CCDA 640-864 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks CCDA 640-864 Official Cert Guide, focuses specifically on the objectives for the Cisco CCDA DESGN exam. Expert networking consultants Anthony Bruno and Steve Jordan 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. Well-regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The official study guide helps you master all the topics on the CCDA DESGN exam, including: Network design methodology Network structure models Enterprise LAN and data center design Enterprise network virtualization Wireless LAN design WAN technologies and design IPv4 and IPv6 RIP, EIGRP, OSPF, and BGP Route summarization and route filtering Security solutions Voice and video design Network management protocols CCDA 640-864 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/go/authorizedtraining.

IPv6 for Enterprise Networks - Shannon McFarland 2011-04-01

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 tranisition 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.