

Cisco Unified Presence Fundamentals Installation Integration And Practical Use Of The Cisco Unified Presence Server And Client Fundamentals Cisco Press

Install, deploy, troubleshoot Cisco Unified Presence Server and Cisco Unified Personal Communicator. This book covers lots of undocumented tricks and tips and 3rd-party tools that are useful for troubleshooting CUPS. Presence and instant message Phone control LDAP integration IP Phone Messenger Voice Mail integration Web Conference Integration XMPP/Jabber CSF - Client Service Framework CUCIMOC - Cisco Unified Communication Integration with Microsoft Office Communicator Microsoft Exchange integration Microsoft OCS integration Lotus Sametime integration 3rd-party compliance See author's blog for more details: <http://htluo.blogspot.com> Use coupon "SHOWERS" to get 10% off. Use coupon "FREEMAIL305" to save on shipping (Offer ends April 30, 2010)

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An introduction to next-generation web technologies This is a comprehensive, candid introduction to Web 2.0 for every executive, strategist, technical professional, and marketer who needs to understand its implications. The authors illuminate the technologies that make Web 2.0 concepts accessible and systematically identify the business and technical best practices needed to make the most of it. You'll gain a clear understanding of what's really new about Web 2.0 and what isn't. Most important, you'll learn how Web 2.0 can help you enhance collaboration, decision-making, productivity, innovation, and your key enterprise initiatives. The authors cut through the hype that surrounds Web 2.0 and help you identify the specific innovations most likely to deliver value in your organization. Along the way, they help you assess, plan for, and profit from user-generated content, Rich Internet Applications (RIA), social networking, semantic web, content aggregation, cloud computing, the Mobile Web, and much more. This is the only book on Web 2.0 that: Covers Web 2.0 from the perspective of every participant and stakeholder, from consumers to product managers to technical professionals Provides a view of both the underlying technologies and the potential applications to bring you up to speed and spark creative ideas about how to apply Web 2.0 Introduces Web 2.0 business applications that work, as demonstrated by actual Cisco® case studies Offers detailed, expert insights into the technical infrastructure and development practices raised by Web 2.0 Previews tomorrow's emerging innovations—including "Web 3.0," the Semantic Web Provides up-to-date references, links, and pointers for exploring Web 2.0 first-hand Krishna Sankar, Distinguished Engineer in the Software Group at Cisco, currently focuses on highly scalable Web architectures and frameworks, social and knowledge graphs, collaborative social networks, and intelligent inferences. Susan A. Bouchard is a senior manager with US-Canada Sales Planning and Operations at Cisco. She focuses on Web 2.0 technology as part of the US-Canada collaboration initiative. Understand Web 2.0's foundational concepts and component technologies Discover today's best business and technical practices for profiting from Web 2.0 and Rich Internet Applications (RIA) Leverage cloud computing, social networking, and user-generated content Understand the infrastructure scalability and development practices that must be address-ed for Web 2.0 to work Gain insight into how Web 2.0 technologies are deployed inside Cisco and their business value to employees, partners, and customers This book is part of the Cisco Press® Fundamentals Series. Books in this series introduce networking professionals to new networking technologies, covering network topologies, example deployment concepts, protocols, and management techniques. Category: General Networking Covers: Web 2.0

Foundation learning for CIPT1 exam 642-446 Dennis Hartmann, CCIE® No. 15651 Implementing Cisco Unified Communications Manager, Part 1 (CIPT1), is a Cisco®-authorized, self-paced learning tool for CCVP® foundation learning. This book provides the knowledge necessary to install, configure, and deploy a Cisco Unified Communications solution based on Cisco Unified Communications Manager, the call routing and signaling component of the Cisco Unified Communications solution. By reading this book, you will gain an understanding of deploying a Cisco Unified Communications Manager to support single site, centralized, distributed, and hybrid call processing models. This book focuses on Cisco Unified Communications Manager Release 6.x. You will learn how to install and configure Cisco Unified Communications Manager, power over Ethernet switches, and gateways using MGCP. You will also learn how to build a scalable dial plan for on-net and off-net calls. The dial plan chapters of the book cover call routing, call coverage, digit manipulation, class of service, and call coverage components. This book will teach you how to implement media resources, LDAP directory integration, and various endpoints including Skinny Client Control Protocol (SCCP) and Session Initiation Protocol (SIP). Cisco Unified Video Advantag endpoint configuration is covered, in addition to, Cisco Unity® voice mail integration and basic voice mail box creation. Various user features are discussed including Presence. Whether you are preparing for CCVP certification or simply want to gain a better understanding of Cisco Unified Communications Manager fundamentals, you will benefit from the foundation information presented in this book. Implementing Cisco Unified Communications Manager, Part 1 (CIPT1), 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. Dennis J. Hartmann, CCIE® No. 15651 is a lead Unified Communications instructor at Global Knowledge. Dennis has been working with CallManager since CallManager 2.0. Dennis has various technical certifications: CCIE No. 15651, CCVP, CCSI, CCNP®, CCIP®, and MCSE. Dennis has worked with various Fortune 500 companies including AT&T, Sprint, Merrill Lynch, KPMG, and Cabletron Systems. Understand Cisco Unified Communications Manager architecture and components Evaluate Cisco Unified Communications Manager deployment models Install, upgrade, and administer Cisco Unified Communications Manager Apply network configuration, NTP, and DHCP configuration options Configure and manage user accounts Deploy various Cisco Unified IP Phones Configure Catalyst® switches for power over Ethernet and voice VLAN requirements Harden IP Phones to mitigate security risks Configure Media Gateway Control Protocol (MGCP) gateways Configure dial plans, call routing, and digit manipulation Deploy various media resources and user features Integrate Cisco Unity Voicemail with Cisco Unified Communications Manager Configure video-enabled IP Phones 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 Unified Communications Manager 6 Covers: CIPT1 exam 642-446 \$65.00 USA / \$72.00 CAN

Data Center Virtualization Fundamentals For many IT organizations, today's greatest challenge is to drive more value, efficiency, and utilization from data centers. Virtualization is the best way to meet this challenge. Data Center Virtualization Fundamentals brings together the comprehensive knowledge Cisco professionals need to apply virtualization throughout their data center environments. Leading data center expert Gustavo A. A. Santana thoroughly explores all components of an end-to-end data center virtualization solution, including networking, storage, servers, operating systems, application optimization, and security. Rather than focusing on a single product or technology, he explores product capabilities as interoperable design tools that can be combined and integrated with other solutions, including VMware vSphere. With the author's guidance, you'll learn how to define and implement highly-efficient architectures for new, expanded, or retrofit data center projects. By doing so, you can deliver agile application provisioning without purchasing unnecessary infrastructure, and establish a strong foundation for new cloud computing and IT-as-a-service initiatives. Throughout, Santana illuminates key theoretical concepts through realistic use cases, real-world designs, illustrative configuration examples, and verification outputs. Appendixes provide valuable reference information, including relevant Cisco data center products and CLI principles for IOS and NX-OS. With this approach, Data Center Virtualization Fundamentals will be an indispensable resource for anyone preparing for the CCNA Data Center, CCNP Data Center, or CCIE Data Center certification exams. Learn how virtualization can transform and improve traditional data center network topologies Understand the key characteristics and value of each data center virtualization technology Walk through key decisions, and transform choices into architecture Smoothly migrate existing data centers toward greater virtualization Burst silos that have traditionally made data centers inefficient Master foundational technologies such as VLANs, VRF, and virtual contexts Use virtual PortChannel and FabricPath to overcome the limits of STP Optimize cabling and network management with fabric extender (FEX) virtualized chassis Extend Layer 2 domains to distant data center sites using MPLS and Overlay Transport Virtualization (OTV) Use VSANs to overcome Fibre Channel fabric challenges Improve SAN data protection, environment isolation, and scalability Consolidate I/O through Data Center Bridging and FCoE Use virtualization to radically simplify server environments Create server profiles that streamline "bare metal" server provisioning "Transcend the rack" through virtualized networking based on Nexus 1000V and VM-FEX Leverage opportunities to deploy virtual network services more efficiently Evolve data center virtualization toward full-fledged private clouds

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.

The CCNA® Voice certification expands your CCNA-level skill set to prepare for a career in voice networking. This lab manual helps to prepare you for the Introducing Cisco Voice and Unified Communications Administration (ICOMM v8.0) certification exam (640-461). CCNA Voice Lab Manual gives you extensive hands-on practice for developing an in-depth understanding of voice networking principles, tools, skills, configurations, integration challenges, and troubleshooting techniques. Using this manual, you can practice a wide spectrum of tasks involving Cisco Unified Communications Manager, Unity Connection, Unified Communications Manager Express, and Unified Presence. CCNA Voice Lab Manual addresses all exam topics and offers additional guidance for successfully implementing IP voice solutions in small-to-medium-sized businesses. CCNA Voice 640-461 Official Exam Certification Guide, Second Edition ISBN-13:

978-1-58720-417-3 ISBN-10: 1-58720-417-7 CCNA Voice Portable Command Guide ISBN-13: 978-1-58720-442-5 ISBN-10: 1-58720-442-8 Configuring Cisco Unified Communications Manager and Unity Connection: A Step-by-Step Guide, Second Edition ISBN-13: 978-1-58714-226-0 ISBN-10: 1-58714-226-0 CCNA Voice Quick Reference ISBN-13: 978-1-58705-767-0 ISBN-10: 1-58705-767-0

Implementing Cisco Unified Communications Manager, Part 1 (CIPT1) Foundation Learning Guide Second Edition Josh Finke, CCIE® No. 25707 Dennis Hartmann, CCIE® No. 15651 Foundation Learning for the CCNP Voice CIPT1 642-447 exam Implementing Cisco Unified Communications Manager, Part 1 (CIPT1), Second Edition is a Cisco®-authorized, self-paced learning tool for CCNP Voice® foundation learning. This book provides the knowledge necessary to implement a Cisco Unified Communications Manager (CUCM) solution at a single-site environment. By reading this book, you will learn how to perform post-installation tasks, configure CUCM, implement Media Gateway Control Protocol (MGCP) and H.323 gateways, and build dial plans to place On-Net and Off-Net phone calls. You will also implement media resources, IP Phone Services, Cisco Unified Communications Manager native presence, and Cisco Unified Mobility. This book focuses primarily on CUCM version 8.x, which is the call routing and signaling component for the Cisco Unified Communications solution. This book has been fully updated with new coverage of CUCM phone services, Cisco Unified Manager Assistant, Cisco Unified Mobility, and H.323 gateways. Whether you are preparing for CCNP Voice certification or simply want to gain a better understanding of Cisco Unified Communications Manager fundamentals, you will benefit from the foundation information presented in this book. Implementing Cisco Unified Communications Manager, Part 1 (CIPT1), 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. n Understand Cisco Unified Communications Manager architecture and components n Evaluate CUCM deployment models n Set up and configure CUCM services n Implement and harden IP phones n Manage user accounts n Configure Catalyst® switches for power over Ethernet and voice VLAN requirements n Deploy MGCP and H.323 gateways n Configure call routing and digit manipulation n Set up calling privileges and call coverage n Deploy various media resources, features, and applications n Establish Presence-enabled speed dials and lists n Implement Cisco Unified Manager Assistant and Cisco Unified Mobile This volume is in the Foundation Learning Guide Series offered by

Cisco Press®. 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.

The definitive, up-to-date guide to planning, configuring, and administering Cisco call processing and voice messaging. This book brings together all the hands-on knowledge you need to successfully configure and administer Cisco's flagship IP voice systems, including Cisco Unified Communications Manager (CUCM), Unity, and Unity Connection. Fully updated for the new CUCM, Unity, and Unity Connection, version 8, it presents step-by-step procedures for every common and complex task that installers, integrators, and administrators will encounter. Long-time Cisco voice implementer and instructor David Bateman begins with clear, well-organized explanations of Cisco Voice over IP technology, including its key functions and devices. Next, he guides you through preparation and deployment, including configuring CUCM for maximum performance, removing DNS dependencies, defining enterprise parameters, configuring regions, and enforcing security. The author presents quick access, step-by-step solutions for dozens of post-deployment tasks, each with thorough instructions and cross-references to prerequisite tasks wherever needed. He demonstrates how to integrate features to create more powerful IP voice systems, thoroughly introduces Cisco's new management interface, and provides extensive coverage of the latest feature enhancements. David Bateman is a certified Cisco instructor, CCNA, and director of curriculum development for Skyline-ATS. He has 20+ years of internetworking experience, including more than a decade as a senior LAN/WAN engineer in networks serving up to 5,000 users. He then ran the business operations of a technical services company while maintaining his existing networking client base. David has taught and implemented Cisco voice technologies since 2000. He authored this book's first edition, and co-authored CCNA Voice Exam Cram. Establish a foundation for CUCM: configure services, set enterprise parameters, register devices, and more Add gateways and client devices Create dial plans, including route patterns, route lists, route groups, CTI route points, translation patterns, and route filters Configure Class of Service (CoS) and Call Admission Control Implement IP phone service, media resources, and Extension Mobility Prepare to deploy Unity/Connection: verify integration; define system parameters; and create templates, distribution lists, and CoS Add, import, and manage users Make the most of Unity/Connection call management, from basic auto-attendant to advanced routing rules and audio-text Integrate legacy voicemail systems Master Unity/Connection's key administrative tools and utilities Use time-of-day routing, call queuing, and other advanced features This IP communications book is part of the Cisco Press® Networking Technology Series. IP communications titles from Cisco Press help networking professionals understand voice and IP telephony technologies, plan and design converged networks, and implement network solutions for increased productivity.

Cisco® Unified Presence offers companies powerful opportunities to improve productivity. Building on the migration to IP telephony and the deployment of Cisco Unified Communications environments, it helps people find each other faster, solve problems more quickly, pursue opportunities with more agility, and increase customer satisfaction. Written by three leading Cisco experts, Cisco Unified Presence Fundamentals explains the concepts behind Unified Presence, the technologies involved, their interdependencies, and how to troubleshoot them. The authors support their discussions of concepts and techniques with many sample applications, guiding network professionals to real-world mastery even if they have never used presence technologies. This book will be an indispensable resource for all Cisco partners and system integrators who need to understand Unified Presence and build solutions, and for all IT and networking professionals who must work with or support those solutions. This is the only book that Walks readers step by step through configuring Cisco Unified Presence Presents practical sample applications that encourage readers to explore and innovate in their own organizations Thoroughly covers the technical aspects of deploying Presence and explains how it can be used within key vertical markets Presents troubleshooting techniques from both server- and client-side perspectives Plan, install, configure, support, and profit from Cisco Unified Presence Understand the components of a Cisco Unified Presence solution and how they fit together Gain valuable insight into how Cisco Unified Presence can increase productivity, scheduling capabilities, and interactivity for evolving industries Understand crucial interdependencies that impact Cisco Unified Presence design, functionality, and behavior Configure Cisco Unified Presence for Federation Understand how to resolve Unified Presence issues with built-in tools and diagnostic utilities 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, passwords, and management techniques.

"Microsoft Voice and Unified Communications is essential reading for anyone using—or considering—Microsoft's range of VoIP options, from consumers to small business owners to enterprise customers." -- Xuedong Huang , General Manager, Microsoft Research Communications, Innovation Center "Joe Schurman has captured the essence of Microsoft's vision and implementation in the areas of Voice and Unified Communications. This is an important book for those interested in connecting the dots between the present and the future in human communications and understanding why things are evolving in that way." --Gurdeep Singh Pall , Microsoft Corporate Vice President, Unified Communications Group Microsoft® Voice and Unified Communications is a book that provides insight into Microsoft's Voice and Unified Communications portfolio of products and services related to Microsoft Windows Live, Microsoft Response Point, and the Microsoft Unified Communications platform. Here's What You'll Find Inside. . . . Microsoft's vision of voice products and services for consumer, small/medium businesses, and enterprise organizations including a foreword by Gurdeep Singh Pall, Microsoft Corporate Vice President, Unified Communications Group, and commentary by Xuedong Huang, General Manager of the Microsoft Research Communications Innovation Center. . Technical guidance and information related to Microsoft Windows Live, Microsoft Response Point, and the Microsoft Unified Communications platform, including the newly released Microsoft Office Communications Server 2007 R2. . Sales guidance for selling Microsoft voice solutions in the SMB and Enterprise markets. . Examples of customized Microsoft voice and unified communications applications. . Overview of Microsoft voice and unified communications security. . Latest Microsoft voice and unified communications research and development. . Understanding of voice, unified communications, and telephony concepts and terms as well as the history and evolution of communications technology.

Cisco Unity Connection The comprehensive guide to Cisco Unity Connection voice messaging system design, implementation, and troubleshooting David Schulz Cisco Unity Connection presents all the concepts and techniques you need to successfully plan, design, implement, and maintain Cisco Unity Connection voice messaging systems. For every stage of the system lifecycle, enterprise voice expert David Schulz offers clear explanations, practical examples, realistic case studies, and best-practice solutions. The author begins by introducing Cisco Unity Connection's core features, capabilities, and components. Next, he provides thorough, step-by-step coverage of configuration, including users, contacts, call routing, dial plans, class of service, and templates. You will find extensive discussions of user features and access, administration and maintenance, redundancy and backup, and much more. Throughout, the author addresses many enhancements introduced in the new Cisco Unity Connection v8.5 software. This book concludes with a complete guide to troubleshooting, including case studies that identify common deployment challenges and help you build real-world problem-solving skills.

Preparing for the latest CCNA® Voice exam? Here are all the CCNA Voice commands you'll need to prepare for the Cisco 640-461 ICOMM v8.0 Exam, in one handy, condensed resource. Filled with valuable, easy-to-access information, the CCNA Voice Portable Command Guide is portable enough for you to use whether you're in the server room or the equipment closet. This quick reference summarizes all commands, keywords, command arguments, and associated prompts relevant for Exam 640-461, and offers tips and examples for applying these commands in live Cisco Unified Communications environments. Topics covered include • Fundamentals: Unified Communications components, functions, call signaling, media flows, and VoIP quality • Preparation: Configure Cisco

switches, routers, and other devices to support Unified Voice • Provisioning: Create/modify users, accounts, endpoints, directory numbers, user and mobility features, and calling privileges • Messaging and Presence: Configure voice messaging, Cisco Unity Connection, and Cisco Unified Presence • Management/Monitoring: Generate reports, monitor voicemail usage, perform backups, and more • Support: Verify PSTN connectivity and define fault domains; troubleshoot endpoints, call quality, and voicemail Access all CCNA Voice commands—use as a quick, offline resource for research and solutions Logical how-to topic groupings provide one-stop research Great for review before CCNA Voice 640-461 certification exams Includes configuration examples for Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Connection, and Cisco Unified Presence Compact size makes it easy to carry with you, wherever you go “Create Your Own Journal” section with blank, lined pages allows you to personalize the book for your needs “What Do You Want to Do?” chart inside cover helps you quickly reference specific tasks This book is part of the Cisco Press® Certification Self-Study Product Family, which offers readers a self-paced study routine for Cisco® certification exams. Titles in the Cisco Press Certification Self-Study Product Family are part of a recommended learning program from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press.

Cisco Unified Contact Center Enterprise (UCCE) The complete guide to managing UCCE environments: tips, tricks, best practices, and lessons learned Cisco Unified Contact Center Enterprise (UCCE) integrates multiple components and can serve a wide spectrum of business requirements. In this book, Gary Ford, an experienced Cisco UCCE consultant brings together all the guidance you need to optimally configure and manage UCCE in any environment. The author shares in-depth insights covering both the enterprise and hosted versions of UCCE. He presents an administrator’s view of how to perform key UCCE tasks and why they work as they do. He thoroughly addresses application configuration, agents, scripting, IVR, dial plans, UCM, error handling, reporting, metrics, and many other key topics. You’ll find proven, standardized configuration examples that help eliminate errors and reduce downtime, step-by-step walkthroughs of several actual configurations, and thorough coverage of monitoring and troubleshooting UCCE systems. Cisco Unified Contact Center Enterprise (UCCE) is an indispensable resource to help you deploy and operate UCCE systems reliably and efficiently. • Understand the Cisco Unified Contact Center product portfolio and platform architecture • Choose the right single-site, multi-site, or clustered deployment model for your environment • Take a lifecycle services approach to UCCE deployment and application configuration—including preparation, planning, design, and implementation • Implement traditional, current-generation, and next-generation call routing • Master the latest best practices for call flow scripting • Understand UCCE’s nodes and distributed processes and build a clean system startup sequence • Design, implement, and deliver unified CM/IP IVR solutions • Set up and efficiently manage UCCE databases • Make the most of UCCE’s reporting tools • Create advanced applications with Data-Driven Routing • Effectively maintain any UCCE deployment, including older versions • Use a best-practice methodology for troubleshooting, and master valuable, little-known Cisco diagnostic tools This IP communications book is part of the Cisco Press® Networking Technology Series. IP communications titles from Cisco Press help networking professionals understand voice and IP telephony technologies, plan and design converged networks, and implement network solutions for increased productivity.

CCNA Collaboration CICD 210-060 Official Cert Guide CCNA Collaboration CICD 210-060 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. Long-time Cisco expert and trainer Michael Valentine shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete, official study package includes A test-preparation routine proven to help you pass the exam “Do I Know This Already?” quizzes, which enable you to decide how much time you need to spend on each section Chapter-ending exercises, which help you drill on key concepts you must know thoroughly The powerful Pearson IT Certification Practice Testsoftware, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports A final preparation chapter that guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. CCNA Collaboration CICD 210-060 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. Michael Valentine, CCNA, CCNP, CCDP, CCVP, CCSI No. 31461, has worked in IT since 1996, and as a trainer since 2001. He is currently a Cisco trainer with Skyline Advanced Technology Services, specializing in Cisco Unified Communications and CCNA. His accessible, humorous, and effective teaching style has demystified Cisco technology for thousands of students. He has developed courseware and labs for both Cisco and its training partners, is co-author of CCNA Exam Cram (Exam 640-802), Third Edition, and is the author of CCNA Voice Quick Reference Guide. The official study guide helps you master topics on the CCNA Collaboration CICD 210-060 exam, including the following: Cisco Unified Communications components Cisco Unified Communications Manager Express administration, end user management, dial plans, and telephony features Cisco Unified Communications Manager administration, end point management, dial plan elements and interactions, and telephony and mobility features Cisco Unity Connection voicemail CM IM and Presence support CME and CUCM management and troubleshooting Monitoring Cisco Unity Connection The CD-ROM contains more than 140 practice questions for the exam, memory table exercises and answer keys, a glossary flash card tool, and a study planner tool. Pearson IT Certification Practice Test minimum system requirements: Windows Vista (SP2), Windows 7, Windows 8.1, or Windows 10; Microsoft .NET Framework 4.5 Client; Pentium-class 1 GHz processor (or equivalent); 512 MB RAM; 650 MB disk space plus 50 MB for each downloaded practice exam; access to the Internet to register and download exam databases 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.

The complete guide to deploying and operating SBC solutions, Including Cisco Unified Border Element (CUBE) Enterprise and service provider networks are increasingly adopting SIP as the guiding protocol for session management, and require leveraging Session Border Controller (SBC) technology to enable this transition. Thousands of organizations have made the Cisco Unified Border Element (CUBE) their SBC technology of choice. Understanding Session Border Controllers gives network professionals and

consultants a comprehensive guide to SBC theory, design, deployment, operation, security, troubleshooting, and more. Using CUBE-based examples, the authors offer insights that will be valuable to technical professionals using any SBC solution. The authors thoroughly cover native call control protocols, SBC behavior, and SBC's benefits for topology abstraction, demarcation and security, media, and protocol interworking. They also present practical techniques and configurations for achieving interoperability with a wide variety of collaboration products and solutions. Evaluate key benefits of SBC solutions for security, management, and interoperability Master core concepts of SIP, H.323, DTMF, signaling interoperability, call routing, fax/modem over IP, security, media handling, and media/signal forking in the SBC context Compare SBC deployment scenarios, and optimize deployment for your environment Size and scale an SBC platform for your environment, prevent oversubscription of finite resources, and control cost through careful licensing Use SBCs as a back-to-back user agent (B2BUA) to interoperate between asymmetric VoIP networks Establish SIP trunking for PSTN access via SBCs Interoperate with call servers, proxies, fax servers, ITSPs, redirect servers, call recording servers, contact centers, and other devices Secure real-time communications over IP Mitigate security threats associated with complex SIP deployments Efficiently monitor and manage an SBC environment

Authorized Self-Study Guide Cisco Voice over IP (CVOICE) Third Edition Foundation learning for CVOICE exam 642-436 Kevin Wallace, CCIE No. 7945 Cisco Voice over IP (CVOICE), Third Edition, is a Cisco-authorized, self-paced learning tool for CCVP foundation learning. This book provides you with the knowledge and skills required to plan, design, and deploy a Cisco voice-over-IP (VoIP) network and to integrate gateways and gatekeepers into an enterprise VoIP network. By reading this book, you will gain a thorough understanding of converged voice and data networks and also the challenges you will face implementing various network technologies. Cisco Voice over IP (CVOICE) presents you with information on the foundational elements of VoIP calls, the description of dial plans, and the implementation of gateways, gatekeepers, and Cisco Unified Border Elements (Cisco UBEs). The book gives you the information needed to implement and support data and voice integration solutions at the network-access level. Whether you are preparing for CCVP certification or simply want to gain a better understanding of VoIP fundamentals, you will benefit from the foundation information presented in this book. Cisco Voice over IP (CVOICE), 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 <http://www.cisco.com/go/authorizedtraining>. Kevin Wallace, CCIE No. 7945, is a certified Cisco instructor, and he teaches courses in the Cisco CCSP, CCVP, and CCNP® tracks. With 19 years of Cisco networking experience, Kevin has been a network design specialist for the Walt Disney World Resort and a network manager for Eastern Kentucky University. Integrate VoIP into an existing data network Design a VoIP network for optimal voice quality Examine the various call types in a VoIP network Configure analog voice interfaces and dial peers Perform call signaling over digital voice ports Implement H.323, MGCP, and SIP protocols on Cisco IOS® gateways Identify dial plan characteristics Configure advanced dial plans Deploy H.323 gatekeepers Implement a Cisco UBE router to provide protocol interworking

This volume constitutes the refereed proceedings of the confederated international conferences: Cooperative Information Systems (CoopIS 2013), Distributed Objects and Applications (DOA-Trusted Cloud 2013), and Ontologies, Data Bases and Applications of SEmantics (ODBASE 2013) held as part of OTM 2013 in September 2013 in Graz, Austria. The 47 revised full papers presented together with 6 short papers and 5 keynotes were carefully reviewed and selected from a total of 137 submissions. The papers are organized in topical sections on business process management; process modelling; service management; social networking; models and schemas; technical advances in cloud computing; towards trusted cloud computing; privacy for the cloud; querying and mining semantic information; semantic matching and mapping; semantic information management; semantics in use.

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

Cisco Unified Presence Fundamentals Pearson Education

Organizations are increasingly transitioning to IPv6, the next generation protocol for defining how devices of all kinds communicate over networks. Now fully updated, IPv6 Fundamentals offers a thorough, friendly, and easy-to-understand introduction to the knowledge and skills you need to deploy and operate IPv6 networks. Leading networking instructor Rick Graziani explains all the basics simply and clearly, step-by-step, providing all the details you'll need to succeed. You'll learn why IPv6 is necessary, how it was created, how it works, and how it has become the protocol of choice in environments ranging from cloud to mobile and IoT. Graziani thoroughly introduces IPv6 addressing, configuration options, and routing protocols, including EIGRP for IPv6, and OSPFv3 (traditional configuration and with address families). Building on this coverage, he then includes more in-depth information involving these protocols and processes. This edition contains a completely revamped discussion of deploying IPv6 in your network, including IPv6/IPv4 integration, dynamic address allocation, and understanding IPv6 from the perspective of the network and host. You'll also find improved coverage of key topics such as Stateless Address Autoconfiguration (SLAAC), DHCPv6, and the advantages of the solicited node multicast address. Throughout, Graziani presents command syntax for Cisco IOS, Windows, Linux, and Mac OS, as well as many examples, diagrams, configuration tips, and updated links to white papers and official RFCs for even deeper understanding. Learn how IPv6 supports modern networks encompassing the cloud, mobile, IoT, and gaming devices Compare IPv6 with IPv4 to see what has changed and what hasn't Understand and represent IPv6 addresses for unicast, multicast, and anycast environments Master all facets of dynamic IPv6 address allocation with SLAAC, stateless DHCPv6, and stateful DHCPv6 Understand all the features of deploying IPv6 addresses in the network including temporary addresses and the privacy extension

Improve operations by leveraging major enhancements built into ICMPv6 and ICMPv6 Neighbor Discovery Protocol Configure IPv6 addressing and Access Control Lists using a common topology Implement routing of IPv6 packets via static routing, EIGRP for IPv6, and OSPFv3 Walk step-by-step through deploying IPv6 in existing networks, and coexisting with or transitioning from IPv4

Today's networks are required to support an increasing array of real-time communication methods. Video chat, real-time messaging, and always-connected resources put demands on networks that were previously unimagined. The Second Edition of Fundamentals of Communications and Networking helps readers better understand today's networks and the way they support the evolving requirements of different types of organizations. It discusses the critical issues of designing a network that will meet an organization's performance needs and discusses how businesses use networks to solve business problems. Using numerous examples and exercises, this text incorporates hands-on activities to prepare readers to fully understand and design modern networks and their requirements. Key Features of the Second Edition: - Introduces network basics by describing how networks work - Discusses how networks support the increasing demands of advanced communications - Illustrates how to map the right technology to an organization's needs and business goals - Outlines how businesses use networks to solve business problems, both technically and operationally.

Cisco's authorized foundation learning self-study guide for the new CCNP Voice CIPT1 V.8 exam • •Developed with the Cisco certification team, creators of the new CCNP Voice exams and courses. •Covers CUCM 8.x configuration and administration in single site environments, from deployment models to services, installation to security. •New chapters on Cisco Unified Mobility, Unified Manager Assistant, and Phone Services. •Includes hundreds of review questions. This is Cisco's authorized, self-paced, foundation learning tool for the new CIPT1 8.0 exam (Implementing Cisco Unified Communications Manager, Part 1), required for the new CCNP Voice certification. It offers readers a complete, engineering-level understanding of planning, deploying, and managing single-site IP Telephony environments based on Cisco Unified Communications Manager (CUCM) 8.x. As an Authorized Self-Study Guide, this book fully reflects the content of the newest versions of the Cisco CIPT1 course. Each chapter ends with 20 questions designed to help readers assess their understanding as they prepare for the exam. Older material has been removed from this edition, and three new chapters have been added to cover: • •Cisco Unified Communications Manager Phone Services. •Implementing Cisco Unified Manager Assistant. •Implementing Cisco Unified Mobility

The official, comprehensive assessment, review, and practice guide for Cisco's latest CCNA Voice exam -- direct from Cisco * *Contains 80% new content, reflecting the exam's expansion to cover Cisco Unified Communications Manager (CUCM), CUCM Express, Unity Connection, Unified Presence, and network infrastructure. *Includes realistic exam questions on CD. *Contains extensive, proven features to help students review efficiently and remember the most important details. This is Cisco's official, comprehensive self-study resource for preparing for the new ICOMM exam - the only exam needed to gain CCNA Voice certification, now an essential prerequisite for CCNP Voice certification. Top Cisco instructor Jeremy D. Cioara presents every objective concisely and logically, with extensive teaching features that promote retention and understanding. Readers will find: * *Pre-chapter quizzes to assess knowledge upfront and focus study more efficiently. *Foundation topics sections that explain concepts and configurations, and link theory to actual configuration commands. *Key topics sections calling attention to every figure, table, and list that candidates must know. *Exam Preparation sections. *Exam-realistic questions on CD About 80% of this edition's content is brand-new, reflecting the new exam's massive revision, reorganization, and expansion. In addition to Cisco CallManager Express, this book now covers Cisco Unified Communications Manager (CUCM), CUCM Express, Unity Connection, Unified Presence, and network infrastructure considerations. Specific topics added in this edition include: * *CUCM/CUCM Express administration. *Managing endpoints and end-users with CUCM. *CUCM dial plan management. *CUCM/CUCM Express mobility features. *Voicemail integration with Unity Connection. *Unified Presence support. *Network infrastructure management/troubleshooting. *Unity Connection management/troubleshooting

A comprehensive introduction to deploying, configuring, and maintaining Cisco Unity Discover the various Cisco Unity integration and deployment solutions, as well as the environmental differences between PBX and IP telephony-based telephone systems Learn the pitfalls of existing systems integration and how to avoid downtime Maintain a Cisco unified messaging solution by using the book's examples, including setups, additions, message sourcing applications, and error reporting Perform the proper installation, upgrade, and back up of Cisco Unity systems Monitor performance and troubleshoot a Cisco Unity system using the proper tools and utilities that help you ensure high availability Choose the proper Cisco Unity networking features to deliver messages to other voice-messaging systems Cisco Unity is the official unified messaging solution for the Cisco Architecture for Voice, Video, and Integrated Data (AVVID) and complements the full range of Cisco IP-based voice solutions, including Cisco CallManager and Cisco Personal Assistant. Cisco Unity Fundamentals provides design and administration goals for migrating from PBX to Cisco IP Telephony, as well as working in a mixed PBX/Cisco IP Telephony environment. You will learn about the transition from the traditional model, with separate architectures for voice-mail and e-mail systems, to supporting unified messaging: e-mail, voice, and fax messages delivered to a single inbox. You will also discover common troubleshooting solutions, such as performance monitoring and the importance of data collection for predicting future system requirements. Cisco Unity Fundamentals begins by introducing the engineering aspects of Cisco Unity and then moves quickly into the hardware and software platforms. Part I focuses on the administration of Cisco Unity, describing the features, general setup, and global settings. Part II describes installation and discusses various types of integration with Cisco CallManager and other telephone systems, including Session Initiation Protocol (SIP) proxy. Part II also delves into networking with other voice-messaging systems. After reading Cisco Unity Fundamentals, you will understand the system, configuration, and on-going maintenance issues

associated with a successful Cisco Unity deployment. This book is part of the Cisco Press Fundamentals Series. Books in this series introduce networking professionals to new networking technologies, covering network topologies, example deployment concepts, protocols, and management techniques.

Cisco IOS XR Fundamentals is a systematic, authoritative guide to configuring routers with Cisco IOS® XR, the next-generation flagship Cisco® Internet operating system. In this book, a team of Cisco experts brings together quick, authoritative, and example-rich reference information for all the commands most frequently used to configure and troubleshoot Cisco IOS XR-based routers in both service provider and enterprise environments. The authors walk you through the details of the Cisco IOS XR architecture and explain commands in the new Cisco IOS XR CLI wherever required. They present concise explanations of service provider requirements and internetwork theory, backed by proven sample configurations for IOS XR services, MPLS, multicast, system management, system security, routing, and interfaces. Cisco IOS XR Fundamentals is an indispensable resource for designing, implementing, troubleshooting, administering, or selling networks containing Cisco IOS XR–supported routers. This is the only Cisco IOS XR book that: Clearly explains how Cisco IOS XR meets the emerging requirements of both current and future networks Gives network professionals extensive information for simplifying migration and taking full advantage of Cisco IOS XR’s new power Presents detailed, tested configuration examples that network professionals can apply in their own networks Walks through using new Cisco IOS XR features and the In-Service Software Upgrade (ISSU) process to minimize downtime and cost Use Cisco IOS XR to deliver superior scalability, availability, security, and service flexibility Understand the Cisco IOS XR distributed, modular architecture Design, implement, and troubleshoot networks containing Cisco IOS XR–supported routers Configure Cisco IOS XR routing, including RIP, IS-IS, OSPF, and EIGRP Learn BGP implementation details specific to Cisco IOS XR and using RPL to influence policies Manage IP addresses and Cisco IOS XR services Secure Cisco IOS XR using standard and extended ACLs, prefix lists, and uRPF Master all facets of MPLS configuration, including LDP, L3VPN, and TE Configure PIM, IGMP, and static RP multicast Optimize networks using advanced Cisco IOS XR features, including secure domain routers Learn building blocks of Multishelf, and understand configurations and migration techniques 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.

Now fully updated for the new Cisco CAPPS 300-085 exam, Implementing Cisco Collaboration Applications (CAPPS) Foundation Learning Guide is your Cisco® authorized learning tool for CCNP® Collaboration preparation. Part of the Cisco Press Foundation Learning Series, it teaches advanced skills for designing, deploying, configuring, and troubleshooting Cisco Collaboration and Unified Communications applications, devices, and networks. Author Chris Olsen shows how to effectively use Cisco Unity Connection, Cisco Unity Express, Cisco Instant Message and Presence, Cisco TelePresence Video Communication Server, and Cisco TelePresence Management Suite in production environments. He begins by introducing the server platforms and overlays that are the basis for all Cisco Unity Connection design and integration. Next, he presents in-depth coverage of a wide range of essential tasks—from user configuration to voicemail redundancy, configuring Cisco Jabber Mobile, to provisioning Cisco Prime Collaboration. Each chapter opens with a list of topics that clearly identifies 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. Whether you are preparing for the CCNP Collaboration certification exams or you are just interested in learning about how to deploy and operate Cisco collaboration applications, you will find this book to be an invaluable resource. Shows how to integrate Cisco Unity Connection with Cisco Unified Communications Manager or other PBXs Covers configuring Cisco Unity Connection users, templates, service classes, distribution lists, security, LDAP, dial plans, and call management Walks through Unified Messaging single Inbox configuration Shows how to design, integrate, and configure feature-rich branch office messaging solutions with Cisco Unity Express Explains Cisco Unified IM and Presence components, design, integration, deployment, and feature configuration Covers Cisco Jabber and Cisco Jabber Mobile configuration Guides you through deploying Cisco Collaboration Systems Applications with Cisco Prime Collaboration Introduces Cisco TelePresence Management Suite (Cisco TMS) capabilities and scheduling options 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.

The real-world guide to securing Cisco-based IP telephony applications, devices, and networks Cisco IP telephony leverages converged networks to dramatically reduce TCO and improve ROI. However, its critical importance to business communications and deep integration with enterprise IP networks make it susceptible to attacks that legacy telecom systems did not face. Now, there’s a comprehensive guide to securing the IP telephony components that ride atop data network infrastructures—and thereby providing IP telephony services that are safer, more resilient, more stable, and more scalable. Securing Cisco IP Telephony Networks provides comprehensive, up-to-date details for securing Cisco IP telephony equipment, underlying infrastructure, and telephony applications. Drawing on ten years of experience, senior network consultant Akhil Behl offers a complete security framework for use in any Cisco IP telephony environment. You’ll find best practices and detailed configuration examples for securing Cisco Unified Communications Manager (CUCM), Cisco Unity/Unity Connection, Cisco Unified Presence, Cisco Voice Gateways, Cisco IP Telephony Endpoints, and many other Cisco IP Telephony applications. The book showcases easy-to-follow Cisco IP Telephony applications and network security-centric examples in every chapter. This guide is invaluable to every technical professional and IT decision-maker concerned with securing Cisco IP telephony networks, including network engineers, administrators, architects, managers, security

analysts, IT directors, and consultants. Recognize vulnerabilities caused by IP network integration, as well as VoIP's unique security requirements Discover how hackers target IP telephony networks and proactively protect against each facet of their attacks Implement a flexible, proven methodology for end-to-end Cisco IP Telephony security Use a layered (defense-in-depth) approach that builds on underlying network security design Secure CUCM, Cisco Unity/Unity Connection, CUPS, CUCM Express, and Cisco Unity Express platforms against internal and external threats Establish physical security, Layer 2 and Layer 3 security, and Cisco ASA-based perimeter security Complete coverage of Cisco IP Telephony encryption and authentication fundamentals Configure Cisco IOS Voice Gateways to help prevent toll fraud and deter attacks Secure Cisco Voice Gatekeepers and Cisco Unified Border Element (CUBE) against rogue endpoints and other attack vectors Secure Cisco IP telephony endpoints—Cisco Unified IP Phones (wired, wireless, and soft phone) from malicious insiders and external threats This IP communications book is part of the Cisco Press® Networking Technology Series. IP communications titles from Cisco Press help networking professionals understand voice and IP telephony technologies, plan and design converged networks, and implement network solutions for increased productivity.

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. CCNA Voice 640-461 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 CCNA Voice 640-461 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks Practice with 200+ realistic exam questions on the CD-ROM CCNA Voice 640-461 Official Cert Guide focuses specifically on the objectives for the CCNA Voice ICOMM exam. Senior voice consultants and trainers Jeremy Cioara and Michael Valentine 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. The companion CD-ROM contains a powerful Pearson IT Certification Practice Test engine that enables you to focus on individual topic areas or take a complete, timed exam. The assessment engine also tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most. 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 CCNA Voice exam, including: Voice and data convergence IP phone connections to the LAN infrastructure Cisco Unified Communications Manager Express CUCM Express IP phone configuration and voice productivity features Gateways and trunks Cisco Unity Express Smart Business Communications System UC500 series for voice CCNA Voice 640-461 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. The print edition of the CCNA Voice 640-461 Official Cert Guide contains two free, complete practice exam. Pearson IT Certification Practice Test minimum system requirements: Windows XP (SP3), Windows Vista (SP2), or Windows 7; Microsoft .NET Framework 4.0 Client; Microsoft SQL Server Compact 4.0; Pentium class 1GHz processor (or equivalent); 512 MB RAM; 650 MB disc space plus 50 MB for each downloaded practice exam Also available from Cisco Press for Cisco CCNA Voice study is the CCNA Voice 640-461 Official Cert Guide Premium Edition eBook and Practice Test. This digital-only certification preparation product combines an eBook with enhanced Pearson IT Certification Practice Test. This integrated learning package: Allows you to focus on individual topic areas or take complete, timed exams Includes direct links from each question to detailed tutorials to help you understand the concepts behind the questions Provides unique sets of exam-realistic practice questions Tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most

This complete new guide to auditing network security is an indispensable resource for security, network, and IT professionals, and for the consultants and technology partners who serve them. Cisco network security expert Chris Jackson begins with a thorough overview of the auditing process, including coverage of the latest regulations, compliance issues, and industry best practices. The author then demonstrates how to segment security architectures into domains and measure security effectiveness through a comprehensive systems approach. Network Security Auditing thoroughly covers the use of both commercial and open source tools to assist in auditing and validating security policy assumptions. The book also introduces leading IT governance frameworks such as COBIT, ITIL, and ISO 17799/27001, explaining their values, usages, and effective integrations with Cisco security products.

Cisco Unified Customer Voice Portal Building Unified Contact Centers Rue Green, CCIE® No. 9269 The definitive guide to deploying Cisco Unified Customer Voice Portal IVRs in any contact center environment Thousands of companies are replacing legacy ACD/TDM-based contact centers with pure IP-based unified contact center solutions. One of these solutions is quickly earning market leadership: Cisco Unified Customer Voice Portal (CVP). Now, one of the leading Cisco CVP experts brings together everything network and telephony professionals need to successfully implement production Interactive Voice Response (IVR) solutions with CVP: architectural guidelines, deployment best practices,

detailed insights for design and sizing, and more. CCIE Rue Green guides you through designing unified contact centers with CVP, and deploying proven infrastructures to support your designs. The author first explains CVP's architecture, outlining its key advantages and opportunities for integration and illuminating the design challenges it presents. Next, he guides you through addressing each of these challenges, covering all CVP components and tools and offering detailed insights available in no other book. Using this book's detailed working configurations and examples, you can minimize configuration errors, reduce downtime, strengthen monitoring, and drive maximum value from any CVP-based unified call center solution. Rue Green, CCIE No. 9269 (Routing & Switching and Voice), CISSP, MCSE, MCITP is a Technical Leader for the Customer Collaboration Service Line within Cisco Advanced Services, where he focuses on unified contact center architectures and deployment methodologies. He currently acts in a delivery architect role for Unified CVP, Unified ICM, and Cisco Unified Communications Manager for Unified Contact Center Solutions. He has spent the last 21 years working within different roles related to the architecture, design, and implementation of large voice and data networks, including several years working with complex contact center solutions.

- Discover CVP's powerful capabilities and advantages
- Understand how CVP's components fit together into a unified architecture
- Utilize CVP native components: Call Server, VXML Server, Reporting Server, Operations Console Server, and Cisco Unified Call Studio
- Integrate non-native components such as IOS devices, Unified ICM, UCM, content load balancers, and third-party servers
- Choose the right deployment model for your organization
- Implement detailed call flows for Standalone, Call Director, Comprehensive, and VRU-only deployment models
- Design Unified CVP for high availability
- Efficiently deliver media via streaming, caching, and other techniques
- Address crucial sizing, QoS, network latency, and security considerations
- Successfully upgrade from older versions or H.323 platforms
- Isolate and troubleshoot faults in native and non-native CVP components
- Design virtualized Unified CVP deployments using UCS

This IP communications book is part of the Cisco Press® Networking Technology Series. IP communications titles from Cisco Press help networking professionals understand voice and IP telephony technologies, plan and design converged networks, and implement network solutions for increased productivity.

Voice over IP Security Security best practices derived from deep analysis of the latest VoIP network threats Patrick Park VoIP security issues are becoming increasingly serious because voice networks and services cannot be protected from recent intelligent attacks and fraud by traditional systems such as firewalls and NAT alone. After analyzing threats and recent patterns of attacks and fraud, consideration needs to be given to the redesign of secure VoIP architectures with advanced protocols and intelligent products, such as Session Border Controller (SBC). Another type of security issue is how to implement lawful interception within complicated service architectures according to government requirements. Voice over IP Security focuses on the analysis of current and future threats, the evaluation of security products, the methodologies of protection, and best practices for architecture design and service deployment. This book not only covers technology concepts and issues, but also provides detailed design solutions featuring current products and protocols so that you can deploy a secure VoIP service in the real world with confidence. Voice over IP Security gives you everything you need to understand the latest security threats and design solutions to protect your VoIP network from fraud and security incidents. Patrick Park has been working on product design, network architecture design, testing, and consulting for more than 10 years. Currently Patrick works for Cisco® as a VoIP test engineer focusing on security and interoperability testing of rich media collaboration gateways. Before Patrick joined Cisco, he worked for Covad Communications as a VoIP security engineer focusing on the design and deployment of secure network architectures and lawful interception (CALEA). Patrick graduated from the Pusan National University in South Korea, where he majored in computer engineering.

Understand the current and emerging threats to VoIP networks Learn about the security profiles of VoIP protocols, including SIP, H.323, and MGCP Evaluate well-known cryptographic algorithms such as DES, 3DES, AES, RAS, digital signature (DSA), and hash function (MD5, SHA, HMAC) Analyze and simulate threats with negative testing tools Secure VoIP services with SIP and other supplementary protocols Eliminate security issues on the VoIP network border by deploying an SBC Configure enterprise devices, including firewalls, Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, IP phones, and multilayer switches to secure VoIP network traffic Implement lawful interception into VoIP service environments

This IP communications book is part of the Cisco Press® Networking Technology Series. IP communications titles from Cisco Press help networking professionals understand voice and IP telephony technologies, plan and design converged networks, and implement network solutions for increased productivity. Category: Networking—IP Communication Covers: VoIP Security

Today, billions of devices are Internet-connected, IoT standards and protocols are stabilizing, and technical professionals must increasingly solve real problems with IoT technologies. Now, five leading Cisco IoT experts present the first comprehensive, practical reference for making IoT work. IoT Fundamentals brings together knowledge previously available only in white papers, standards documents, and other hard-to-find sources—or nowhere at all. The authors begin with a high-level overview of IoT and introduce key concepts needed to successfully design IoT solutions. Next, they walk through each key technology, protocol, and technical building block that combine into complete IoT solutions. Building on these essentials, they present several detailed use cases, including manufacturing, energy, utilities, smart+connected cities, transportation, mining, and public safety. Whatever your role or existing infrastructure, you'll gain deep insight what IoT applications can do, and what it takes to deliver them. Fully covers the principles and components of next-generation wireless networks built with Cisco IOT solutions such as IEEE 802.11 (Wi-Fi), IEEE 802.15.4-2015 (Mesh), and LoRaWAN Brings together real-world tips, insights, and best practices for designing and implementing next-generation wireless networks Presents start-to-finish configuration examples for common deployment scenarios Reflects the extensive first-hand experience of Cisco experts

Voice and Video Conferencing Fundamentals Design, develop, select, deploy, and support advanced IP-based audio and video conferencing systems Scott Firestone, Thiya Ramalingam, Steve Fry As audio and video conferencing move rapidly into the mainstream, customers and end users are demanding unprecedented performance, reliability, scalability, and security. In Voice and Video Conferencing Fundamentals, three leading experts systematically introduce the principles, technologies, and protocols underlying today's state-of-the-art conferencing systems. Discover how to use these concepts and techniques to deliver unified, presence-enabled services that integrate voice, video, telephony, networks, and the Internet--and enable breakthrough business collaboration. The authors begin with a clear, concise overview of current voice and video conferencing, including system components, operational modes, endpoints, features, and user interactivity. Next, they illuminate conferencing architectures, offering practical insights for designing today's complex IP-based conferencing and collaboration systems. Topics covered in this book include video codecs, media control, SIP and H.323 protocols and applications, lip synchronization in video conferencing, security, and much more. Throughout the book, the authors draw on their extensive experience as Cisco® technical leaders, showing how to avoid the most common pitfalls that arise in planning, deployment, and administration. Voice and Video Conferencing Fundamentals is for every professional involved with audio or video conferencing: network and system administrators, engineers, technology managers, and Cisco solution partners alike. Whether you're involved with design, development, selection, implementation, management, or support, you'll find the in-depth knowledge you need to succeed. Scott Firestone holds a master's degree in computer science from MIT and has designed video conferencing and voice products since 1992, resulting in five patents. Thiya Ramalingam is an engineering manager for the Cisco Unified Communications organization. Thiya holds a master's degree in computer engineering and an MBA degree from San Jose State University. Steve Fry, a technical leader in the Cisco Unified Communication organization, has spent the last several years designing and developing telephony and conferencing products. Thoroughly understand the fundamentals of audio and video conferencing over IP networks Architect networks for optimal performance and reliability in conferencing applications Leverage new advances in video architecture, from emerging codecs to distributed implementations Understand how SIP and H.323 compare, and when to use each Optimize synchronization between audio and video Secure conferencing traffic without compromising performance or connectivity Learn how to evaluate vendors and make better buying decisions Foreword Introduction Chapter 1 Overview of Conferencing Services Chapter 2 Conferencing System Design and Architecture Chapter 3 Fundamentals of Video Compression Chapter 4 Media Control and Transport Chapter 5 Signaling Protocols: Conferencing Using SIP Chapter 6 Signaling Protocols: Conferencing Using H. Chapter 7 Lip Synchronization in Video Conferencing Chapter 8 Security Design in Conferencing Appendix A Video Codec Standards 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: Cisco Press/Networking Covers: Voice and video conferencing 1587052687

Data Center Virtualization Fundamentals For many IT organizations, today's greatest challenge is to drive more value, efficiency, and utilization from data centers. Virtualization is the best way to meet this challenge. Data Center Virtualization Fundamentals brings together the comprehensive knowledge Cisco professionals need to apply virtualization throughout their data center environments. Leading data center expert Gustavo A. A. Santana thoroughly explores all components of an end-to-end data center virtualization solution, including networking, storage, servers, operating systems, application optimization, and security. Rather than focusing on a single product or technology, he explores product capabilities as interoperable design tools that can be combined and integrated with other solutions, including VMware vSphere. With the author's guidance, you'll learn how to define and implement highly-efficient architectures for new, expanded, or retrofit data center projects. By doing so, you can deliver agile application provisioning without purchasing unnecessary infrastructure, and establish a strong foundation for new cloud computing and IT-as-a-service initiatives. Throughout, Santana illuminates key theoretical concepts through realistic use cases, real-world designs, illustrative configuration examples, and verification outputs. Appendixes provide valuable reference information, including relevant Cisco data center products and CLI principles for IOS and NX-OS. With this approach, Data Center Virtualization Fundamentals will be an indispensable resource for anyone preparing for the CCNA Data Center, CCNP Data Center, or CCIE Data Center certification exams. Gustavo A. A. Santana, CCIE No. 8806, is a Cisco Technical Solutions Architect working in enterprise and service provider data center projects that require deep integration across technology areas such as networking, application optimization, storage, and servers. He has more than 15 years of data center experience, and has led and coordinated a team of specialized Cisco engineers in Brazil. He holds two CCIE certifications (Routing & Switching and Storage Networking), and is a VMware Certified Professional (VCP) and SNIA Certified Storage Networking Expert (SCSN-E). A frequent speaker at Cisco and data center industry events, he blogs on data center virtualization at gustavoasantana.net. Learn how virtualization can transform and improve traditional data center network topologies Understand the key characteristics and value of each data center virtualization technology Walk through key decisions, and transform choices into architecture Smoothly migrate existing data centers toward greater virtualization Burst silos that have traditionally made data centers inefficient Master foundational technologies such as VLANs, VRF, and virtual contexts Use virtual PortChannel and FabricPath to overcome the limits of STP Optimize cabling and network management with fabric extender (FEX) virtualized chassis Extend Layer 2 domains to distant data center sites using MPLS and Overlay Transport Virtualization (OTV) Use VSANs to overcome Fibre Channel fabric challenges Improve SAN data protection, environment isolation, and scalability Consolidate I/O through Data Center Bridging and FCoE Use virtualization to radically simplify server environments Create server profiles that streamline "bare metal" server provisioning "Transcend the rack" through virtualized networking based on Nexus 1000V and VM-FEX Leverage opportunities to deploy virtual network services more efficiently Evolve data center virtualization

toward full-fledged private clouds -Reviews - "The variety of material that Gustavo covers in this work would appeal to anyone responsible for Data Centers today. His grasp of virtualization technologies and ability to relate it in both technical and non-technical terms makes for compelling reading. This is not your ordinary tech manual. Through use of relatable visual cues, Gustavo provides information that is easily recalled on the subject of virtualization, reaching across Subject Matter Expertise domains. Whether you consider yourself well-versed or a novice on the topic, working in large or small environments, this work will provide a clear understanding of the diverse subject of virtualization." -- Bill Dufresne, CCIE 4375, Distinguished Systems Engineer, Cisco (Americas) "..this book is an essential reference and will be valuable asset for potential candidates pursuing their Cisco Data Center certifications. I am confident that in reading this book, individuals will inevitably gain extensive knowledge and hands-on experience during their certification preparations. If you're looking for a truly comprehensive guide to virtualization, this is the one!" -- Yusuf Bhajji, Senior Manager, Expert Certifications (CCIE, CCDE, CCAr), Learning@Cisco "When one first looks at those classic Cisco Data Center blueprints, it is very common to become distracted with the overwhelming number of pieces and linkages. By creating a solid theoretical foundation and providing rich sets of companion examples to illustrate each concept, Gustavo's book brings hope back to IT Professionals from different areas of expertise. Apparently complex topics are demystified and the insertion of products, mechanisms, protocols and technologies in the overall Data Center Architecture is clearly explained, thus enabling you to achieve robust designs and successful deployments. A must read... Definitely!" -- Alexandre M. S. P. Moraes, Consulting Systems Engineer -- Author of "Cisco Firewalls"

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