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## Acces PDF Cisco Ucs Design Guide

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**KEY=CISCO - WILLIAMSON LOPEZ**

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# Cisco Unified Computing System (UCS) (Data Center)

## A Complete Reference Guide to the Cisco Data Center Virtualization Server Architecture

Pearson Education *The definitive guide to UCS and the Cisco® Data Center Server: planning, architecture, components, deployment, and benefits With its new Unified Computing System (UCS) family of products, Cisco has introduced a fundamentally new vision for data center computing: one that reduces ownership cost, improves agility, and radically simplifies management. In this book, three Cisco insiders thoroughly explain UCS, and offer practical insights for IT professionals and decision-makers who are evaluating or implementing it. The authors establish the context for UCS by discussing the implications of virtualization, unified I/O, large memories and other key technologies, and showing how trends like cloud computing and green IT will drive the next-generation data center. Next, they take a closer look at the evolution of server CPU, memory, and I/O subsystems, covering advances such as the Intel® XEON® 5500, 5600, 7500, DDR3 memory, and unified I/O over 10 Gbps Ethernet. Building on these fundamentals, the authors then discuss UCS in detail, showing how it systematically overcomes key limitations of current data center environments. They review UCS features, components, and architecture, and demonstrate how it can improve data center performance, reliability, simplicity, flexibility, and energy efficiency. Along the way, they offer realistic planning, installation, and migration guidance: everything decision-makers and technical implementers need to gain maximum value from UCS—now, and for years to come. Silvano Gai has spent 11 years as Cisco Fellow, architecting Catalyst®, MDS, and Nexus switches. He has written several books on networking, written multiple Internet Drafts and RFCs, and is responsible for 80 patents and applications. He teaches a course on this book's topics at Stanford University. Tommi Salli, Cisco Technical Marketing Engineer, has nearly 20 years of experience with servers and applications at Cisco, Sun, VERITAS, and Nuova Systems. Roger Andersson, Cisco Manager, Technical Marketing, spent more than 12 years in the CLARiiON® Engineering Division at EMC, and 5 years as Technical Product Manager at VERITAS/Symantec. He is now focused on Cisco UCS system management. Streamline data centers with UCS to systematically reduce cost of ownership Eliminate unnecessary server components—and their setup, management, power, cooling, and cabling Use UCS to scale service delivery, simplify service movement, and improve agility Review the latest advances in processor, memory, I/O, and virtualization architectures for data center servers Understand the specific technical advantages of UCS Integrate UCS 6100 Fabric Interconnect, Cisco UCS 2100 Series Fabric Extenders, UCS 5100 Series Blade Server Enclosures, UCS B-Series Blade Servers, UCS C-Series Rack Servers, and UCS Adapters Use Cisco UCS Manager to manage all Cisco UCS components as a single, seamless entity Integrate third-party management tools from companies like BMC®, CA®, EMC®, IBM®, Microsoft®, and VMware® Practice all this with a copy of Cisco Unified Computing System™ Platform Emulator Lite (UCSPE Lite) on the DVD in the back of the book 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.*

## Data Center Virtualization Fundamentals

Pearson Education *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](http://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 Bhaiji, 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"

## Implementing a VersaStack Solution by Cisco and IBM with IBM FlashSystem 5030, Cisco UCS Mini, Hyper-V, and SQL Server

**IBM Redbooks** VersaStack, an IBM® and Cisco integrated infrastructure solution, combines computing, networking, and storage into a single integrated system. It combines the Cisco Unified Computing System (Cisco UCS) Integrated Infrastructure with IBM Spectrum Virtualize™, which includes IBM FlashSystem® storage offerings, for quick deployment and rapid time to value for the implementation of modern infrastructures. This IBM Redbooks® publication covers the preferred practices for implementing a VersaStack Solution with IBM FlashSystem 5030, Cisco UCS Mini, Hyper-V 2016, and Microsoft SQL Server. Cisco UCS Mini is optimized for branch and remote offices, point-of-sale locations, and smaller IT environments. It is the ideal solution for customers who need fewer servers but still want the comprehensive management capabilities provided by Cisco UCS Manager. The IBM FlashSystem 5030 delivers efficient, entry-level configurations that are designed to meet the needs of small and midsize businesses. Designed to provide organizations with the ability to consolidate and share data at an affordable price, the IBM FlashSystem 5030 offers advanced software capabilities such as clustering, IBM Easy Tier®, replication and snapshots that are found in more expensive systems. This book is intended for pre-sales and post-sales technical support professionals and storage administrators who are tasked with deploying a VersaStack solution with Hyper-V 2016 and Microsoft SQL Server.

## VersaStack Solution by Cisco and IBM with Oracle RAC, IBM FlashSystem V9000, and IBM Spectrum Protect

**IBM Redbooks** Dynamic organizations want to accelerate growth while reducing costs. To do so, they must speed the deployment of business applications and adapt quickly to any changes in priorities. Organizations today require an IT infrastructure that is easy, efficient, and versatile. The VersaStack solution by Cisco and IBM® can help you accelerate the deployment of your data centers. It reduces costs by more efficiently managing information and resources while maintaining your ability to adapt to business change. The VersaStack solution combines the innovation of Cisco UCS Integrated Infrastructure with the efficiency of the IBM Storwize® storage system. The Cisco UCS Integrated Infrastructure includes the Cisco Unified Computing System (Cisco UCS), Cisco Nexus and Cisco MDS switches, and Cisco UCS Director. The IBM FlashSystem® V9000 enhances virtual environments with its Data Virtualization, IBM Real-time Compression™, and IBM Easy Tier® features. These features deliver extraordinary levels of performance and efficiency. The VersaStack solution is Cisco Application Centric Infrastructure (ACI) ready. Your IT team can build, deploy, secure, and maintain applications through a more agile framework. Cisco Intercloud Fabric capabilities help enable the creation of open and highly secure solutions for the hybrid cloud. These solutions accelerate your IT transformation while delivering dramatic improvements in operational efficiency and simplicity. Cisco and IBM are global leaders in the IT industry. The VersaStack solution gives you the opportunity to take advantage of integrated infrastructure solutions that are targeted at enterprise applications, analytics, and cloud solutions. The VersaStack solution is backed by Cisco Validated Designs (CVD) to provide faster delivery of applications, greater IT

efficiency, and less risk. This IBM Redbooks® publication is aimed at experienced storage administrators who are tasked with deploying a VersaStack solution with Oracle Real Application Clusters (RAC) and IBM Spectrum™ Protect.

## VersaStack Solution by Cisco and IBM with IBM DB2, IBM Spectrum Control, and IBM Spectrum Protect

IBM Redbooks Dynamic organizations want to accelerate growth while reducing costs. To do so, they must speed the deployment of business applications and adapt quickly to any changes in priorities. Organizations require an IT infrastructure to be easy, efficient, and versatile. The VersaStack solution by Cisco and IBM® can help you accelerate the deployment of your datacenters. It reduces costs by more efficiently managing information and resources while maintaining your ability to adapt to business change. The VersaStack solution combines the innovation of Cisco Unified Computing System (Cisco UCS) Integrated Infrastructure with the efficiency of the IBM Storwize® storage system. The Cisco UCS Integrated Infrastructure includes the Cisco UCS, Cisco Nexus and Cisco MDS switches, and Cisco UCS Director. The IBM Storwize V7000 storage system enhances virtual environments with its Data Virtualization, IBM Real-time Compression™, and IBM Easy Tier® features. These features deliver extraordinary levels of performance and efficiency. The VersaStack solution is Cisco Application Centric Infrastructure (ACI) ready. Your IT team can build, deploy, secure, and maintain applications through a more agile framework. Cisco Intercloud Fabric capabilities help enable the creation of open and highly secure solutions for the hybrid cloud. These solutions accelerate your IT transformation while delivering dramatic improvements in operational efficiency and simplicity. Cisco and IBM are global leaders in the IT industry. The VersaStack solution gives you the opportunity to take advantage of integrated infrastructure solutions that are targeted at enterprise applications, analytics, and cloud solutions. The VersaStack solution is backed by Cisco Validated Designs (CVDs) to provide faster delivery of applications, greater IT efficiency, and less risk. This IBM Redbooks® publication is aimed at experienced storage administrators that are tasked with deploying a VersaStack solution with IBM DB2® High Availability (DB2 HA), IBM Spectrum™ Protect, and IBM Spectrum Control™.

## VersaStack Solution for File Storage Using IBM Storwize V5030 and Windows Server 2016

IBM Redbooks This IBM® Redpaper™ publication can help you understand how to implement VersaStack with IBM Storwize® V5030 and Microsoft Windows Server 2016 for file storage. This is one of two solutions, powered by IBM Spectrum™ Virtualize, that will replace the Storwize V7000 Unified.

## Cisco Unified Customer Voice Portal Building Unified Contact Centers

Cisco Press 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.

# Implementing Cisco UCS Solutions

*Packt Publishing Ltd* A tutorial-based approach which will help you understand the practical methodologies and deploying of Cisco UCS components. If you are a professional such as a system, network, or storage administrator who is responsible for Cisco UCS deployments, this is the perfect book for you. You should have some basic knowledge of the server's architecture, network, and storage technologies. Familiarity with virtualization technologies is also recommended (though not necessary) as the majority of real-world UCS deployments run virtualized loads. Knowledge of Nexus OS is not necessary as the majority of the management tasks are handled in a graphical user interface with very few exceptions using the CLI.

## CCNA Cloud Complete Study Guide

### Exam 210-451 and Exam 210-455

*John Wiley & Sons* Cisco has announced big changes to its certification program. As of February 24, 2020, all current certifications will be retired, and Cisco will begin offering new certification programs. The good news is if you're working toward any current CCNA certification, keep going. You have until February 24, 2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have until February 23, 2020 to complete your CCNA certification in the current program. Likewise, if you're thinking of completing the current CCENT/ICND1, ICND2, or CCNA Routing and Switching certification, you can still complete them between now and February 23, 2020. Increase the value of your organization's cloud network—and invest in your education The Cisco Cloud certification validates the skill set of individuals on industry-leading cloud solutions and best practices, as well as offering job role-based curricula for all levels of an IT staff. CCNA Cloud Complete Study Guide prepares you to take two required exams: 210-451, Understanding Cisco Cloud Fundamentals, and 210-455, Introducing Cisco Cloud Administration. It covers everything you can expect to encounter on the exams and also gives you a year of FREE access to Sybex's superior online interactive learning environment and test bank, including chapter tests, practice exams, a glossary of key terms, and electronic flashcards. Cisco's CCNA Cloud certification covers cloud characteristics and models, cloud deployment, and basic knowledge of cloud compute, cloud networking, and cloud storage. It also covers cloud infrastructure administration and reporting, chargeback and billing reports, cloud provisioning, cloud systems management and monitoring, and cloud remediation. With thorough coverage, practical instruction, and expert insight, this book provides an ideal resource for Exam 210-451 and Exam 210-455 preparation. • Includes an opening list of exam topics • Provides valuable hands-on exercises • Offers practical real-world examples • Distills in-depth perspective from cloud computing experts This book is the perfect resource for anyone seeking to earn the challenging, but rewarding CCNA Cloud certification.

## CCNP and CCIE Data Center Core DCCOR 350-601

### Official Cert Guide

## Implementing and Operating Cisco Data Center Core Technologies

*Cisco Press* 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 is available through product registration at Cisco Press; or see the instructions in the back pages of your eBook. Learn, prepare, and practice for CCNP/CCIE Data Center Core DCCOR 350-601 exam success with this Cert Guide from Cisco Press, a leader in IT certification learning and the only self-study resource approved by Cisco. • Master CCNP/CCIE Data Center Core DCCOR 350-601 exam topics • Assess your knowledge with chapter-ending quizzes • Review key concepts with exam preparation tasks • Learn from more than two hours of video mentoring CCNP and CCIE Data Center Core DCCOR 350-601 Official Cert Guide is a best-of-breed exam study guide. Expert authors Somit Maloo and Firas Ahmed 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 book presents you with an organized test-preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. The book also contains more than two hours of personal video mentoring from the Pearson IT Certification Complete Video Course. Go to the back pages of your eBook for instructions on how to access the personal video mentoring content. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will help you succeed on the exam the first time. This official study guide helps you master all the topics on the CCNP/CCIE Data Center Core DCCOR 350-601 exam, including • Network • Compute • Storage Network • Automation • Security

## CCNA Data Center DCICT 640-916 Official Cert Guide

*Cisco Press* CCNA Data Center DCICT 640-916 Official Cert Guide CCNA Data Center DCICT 640-916 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. A team of leading

Cisco data center experts 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 --Part-ending exercises, which help you drill on key concepts you must know thoroughly --The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports --Study plan suggestions and templates to help you organize and optimize your study time --A final preparation chapter that guides you through tools and resources to help you craft your review and test-taking strategies Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Data Center DCICT 640-916 exam, including --Cisco data center concepts: architectures, devices, layers, modular design, vPC, FabricPath, Cisco Nexus switches, and more --Data center unified fabric: FCoE, multihop, VIFs, FEX, and setup --Storage networking: concepts, targets, verification, connectivity, zoning, setup, and configuration --Data center virtualization: servers, devices, and Nexus 1000V, including setup and operations --Cisco Unified Computing: concepts, discovery, connectivity, setup, and UCSM --Data center network services: ACE load balancing, virtual context, HA, management, global/local solutions, and WAAS The CD-ROM contains more than 450 practice questions for the exam, memory table exercises and answer keys, and a study planner tool. Includes Exclusive Offer for 70% Off Premium Edition eBook and Practice Test Pearson IT Certification Practice Test minimum system requirements: Windows XP (SP3), Windows Vista (SP2), Windows 7, or Windows 8; Microsoft .NET Framework 4.0 Client; Pentium class 1GHz 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

## Hyperconverged Infrastructure Data Centers

### Demystifying HCI

Cisco Press *Improve Manageability, Flexibility, Scalability, and Control with Hyperconverged Infrastructure* Hyperconverged infrastructure (HCI) combines storage, compute, and networking in one unified system, managed locally or from the cloud. With HCI, you can leverage the cloud's simplicity, flexibility, and scalability without losing control or compromising your ability to scale. In *Hyperconverged Infrastructure Data Centers*, best-selling author Sam Halabi demystifies HCI technology, outlines its use cases, and compares solutions from a vendor-neutral perspective. He guides you through evaluation, planning, implementation, and management, helping you decide where HCI makes sense, and how to migrate legacy data centers without disrupting production systems. The author brings together all the HCI knowledge technical professionals and IT managers need, whether their background is in storage, compute, virtualization, switching/routing, automation, or public cloud platforms. He explores leading solutions including the Cisco HyperFlex platform, VMware vSAN, Nutanix Enterprise Cloud, Cisco Application-Centric Infrastructure (ACI), VMware's NSX, the open source OpenStack and Open vSwitch (OVS) / Open Virtual Network (OVN), and Cisco CloudCenter for multicloud management. As you explore discussions of automation, policy management, and other key HCI capabilities, you'll discover powerful new opportunities to improve control, security, agility, and performance. Understand and overcome key limits of traditional data center designs Discover improvements made possible by advances in compute, bus interconnect, virtualization, and software-defined storage Simplify rollouts, management, and integration with converged infrastructure (CI) based on the Cisco Unified Computing System (UCS) Explore HCI functionality, advanced capabilities, and benefits Evaluate key HCI applications, including DevOps, virtual desktops, ROBO, edge computing, Tier 1 enterprise applications, backup, and disaster recovery Simplify application deployment and policy setting by implementing a new model for provisioning, deployment, and management Plan, integrate, deploy, provision, manage, and optimize the Cisco HyperFlex hyperconverged infrastructure platform Assess alternatives such as VMware vSAN, Nutanix, open source OpenStack, and OVS/OVN, and compare architectural differences with HyperFlex Compare Cisco ACI (Application-Centric Infrastructure) and VMware NSX approaches to network automation, policies, and security 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.

### Network Security First-step

Cisco Press *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.*

## CCNA Data Center DCICT 200-155 Official Cert Guide

### Exam 67 Offic Cert ePub \_1

Cisco Press *CCNA Data Center DCICT 200-155 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. A team of leading Cisco data center experts 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 edition of the *CCNA Data Center DCICT 200-155 Official Cert Guide*. This eBook does not include the access code for the practice exam that comes with the print edition. 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 Part-ending exercises, which help you drill on key concepts you must know thoroughly Study plan suggestions and templates to help you organize and optimize your study time A final preparation chapter that guides you through tools and resources to help you

craft your review and test-taking strategies Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Data Center DCICT 200-155 exam.

## Cisco Unified Contact Center Enterprise (UCCE)

Pearson Education *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.

## Cisco CCNA Data Center DCICT 640-916 Official Certification Guide

Pearson Education Accompanying CD-ROM contains more than 450 practice questions for the exam, memory table exercises, answer keys, and a study planner tool.

## CCNA Data Center DCICN 200-150 Official Cert Guide Exam 66 Official Cert ePub \_1

Cisco Press 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. CCNA Data Center DCICN 200-150 Official Cert Guide from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Cisco Data Center experts Chad Hintz, Cesar Obediente, and Ozden Karakok share 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 exam Do I Know This Already? quizzes, which allows you to decide how much time you need to spend on each section Chapter-ending exercises, which help you drill on key concepts you must know thoroughly The powerful Pearson IT Certification Practice Test software complete with hundreds of well-reviewed, exam-realistic questions customization options, and detailed performance reports final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time Well-regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Data Center DCICN 200-150 exam, including the following: Nexus data center infrastructure and architecture Networking models, Ethernet LANs, and IPv4/IPv6 addressing/routing Data center Nexus switching and routing fundamentals Nexus switch installation and operation VLANs, trunking, STP, and Ethernet switching IPv4 and IPv6 subnetting IPv4 routing concepts, protocols, configuration, and access control Data center storage networking technologies and configurations

## CCNA Data Center DCICT 200-155 Official Cert Guide

Cisco Press CCNA Data Center DCICT 200-155 Official Cert Guide from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. A team of leading Cisco data center experts share 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 allows 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 The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports Study plan suggestions and templates to help you organize and optimize your study time A final preparation chapter that guides you through tools and resources to help you craft your review and test-taking strategies Well-regarded for its level of detail, study plans, assessment features, and

challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Data Center DCICT 200-155 exam, including Cisco data center concepts: Portchannel, virtual port-channel (vPC), FabricPath, data plane, control plane, management plane, role based access control, and more Data center unified fabric: FCoE, multihop, VIFs, FEX, and setup Data center virtualization: servers, devices, and Nexus 1000v, including setup and operations Cisco Unified Computing: concepts, discovery, connectivity, setup, and UCSM Cisco Application Centric Infrastructure, ACI logical model, and policy framework n Cloud Computing, services models, and the use of application programming interfaces (APIs) Cisco UCS Director and troubleshooting UCSD workflows

## The The Complete VMware vSphere Guide

### Design a virtualized data center with VMware vSphere

#### 6.7

[Packt Publishing Ltd](#) Explore the benefits of VMware vSphere 6.7 to provide a powerful, flexible, and secure virtual infrastructure, and secure apps. Next, you'll pick up on how to enhance your infrastructure with high-performance storage access, such as remote direct memory access (RDMA) and Persistent Key Features Design, deploy and manage VMware vSphere virtual data centers Implement monitoring and security of VMware workloads with ease Explore tips and techniques for designing a robust virtual infrastructure Book Description vSphere 6.7 is the latest release of VMware's industry-leading virtual cloud platform. By understanding how to manage, secure, and scale apps with vSphere 6.7, you can easily run even the most demanding of workloads. This Learning Path begins with an overview of the features of the vSphere 6.7 suite. You'll learn how to plan and design a virtual infrastructure. You'll also gain insights into best practices to efficiently configure, manage, and secure apps. Next, you'll pick up on how to enhance your infrastructure with high-performance storage access, such as remote direct memory access (RDMA) and Persistent memory. The book will even guide you in securing your network with security features, such as encrypted vMotion and VM-level encryption. Finally, by learning how to apply Proactive High Availability and Predictive Distributed Resource Scheduler (DRS), you'll be able to achieve enhanced computing, storage, network, and management capabilities for your virtual data center. By the end of this Learning Path, you'll be able to build your own VMware vSphere lab that can run high workloads. This Learning Path includes content from the following Packt products: VMware vSphere 6.7 Data Center Design Cookbook - Third Edition by Mike Brown and Hersey Cartwright Mastering VMware vSphere 6.7 - Second Edition by Martin Gavanda, Andrea Mauro, Karel Novak, and Paolo Valsecchi What you will learn Understand how to patch, upgrade, and manage a virtual environment with vSphere 6.7 Identify key factors related to a vSphere design Mitigate security risks and meet compliance requirements in a vSphere design Create a vSphere conceptual design by identifying technical and business requirements Map the logical resource design into the physical vSphere design Create professional vSphere design documentation Who this book is for This Learning Path is for administrators, infrastructure engineers, consultants, and architects who want to design virtualized data center environments using VMware vSphere 6.x (or previous versions of vSphere and the supporting components). Basic knowledge of VMware vSphere is required to get the most out of this Learning Path.

## Mastering Microsoft Virtualization

[John Wiley & Sons](#)

### VMware Software-Defined Storage

#### A Design Guide to the Policy-Driven, Software-Defined Storage Era

[John Wiley & Sons](#) The inside guide to the next generation of data storage technology VMware Software-Defined Storage, A Guide to the Policy Driven, Software-Defined Storage Era presents the most in-depth look at VMware's next-generation storage technology to help solutions architects and operational teams maximize quality storage design. Written by a double VMware Certified Design Expert, this book delves into the design factors and capabilities of Virtual SAN and Virtual Volumes to provide a uniquely detailed examination of the software-defined storage model. Storage-as-a-Service (STaaS) is discussed in terms of deployment through VMware technology, with insight into the provisioning of storage resources and operational management, while legacy storage and storage protocol concepts provide context and demonstrate how Virtual SAN and Virtual Volumes are meeting traditional challenges. The discussion on architecture emphasizes the economies of storage alongside specific design factors for next-generation VMware based storage solutions, and is followed by an example in which a solution is created based on the preferred option identified from a selection of cross-site design options. Storage hardware lifecycle management is an ongoing challenge for IT organizations and service providers. VMware is addressing these challenges through the software-defined storage model and Virtual SAN and Virtual Volumes technologies; this book provides unprecedented detail and expert guidance on the future of storage. Understand the architectural design factors of VMware-based storage Learn best practices for Virtual SAN stretched architecture implementation Deploy STaaS through vRealize Automation and vRealize Orchestrator Meet traditional storage challenges with next-generation storage technology Virtual SAN and Virtual Volumes are leading the way in efficiency, automation, and simplification, while maintaining enterprise-class features and performance. As organizations around the world are looking to cut costs without sacrificing performance, availability, or scalability, VMware-based next-generation storage solutions are the ideal platform for tomorrow's virtual infrastructure. VMware

*Software-Defined Storage provides detailed, practical guidance on the model that is set to transform all aspects of vSphere data center storage.*

## Cisco Digital Network Architecture

### Intent-based Networking for the Enterprise

*Cisco Press The complete guide to transforming enterprise networks with Cisco DNA As networks become more complex and dynamic, organizations need better ways to manage and secure them. With the Cisco Digital Network Architecture, network operators can run entire network fabrics as a single, programmable system by defining rules that span their devices and move with their users. Using Cisco intent-based networking, you spend less time programming devices, managing configurations, and troubleshooting problems so you have more time for driving value from your network, your applications, and most of all, your users. This guide systematically introduces Cisco DNA, highlighting its business value propositions, design philosophy, tenets, blueprints, components, and solutions. Combining insider information with content previously scattered through multiple technical documents, it provides a single source for evaluation, planning, implementation, and operation. The authors bring together authoritative insights for multiple business and technical audiences. Senior executives will learn how DNA can help them drive digital transformation for competitive advantage. Technical decision-makers will discover powerful emerging solutions for their specific needs. Architects will find essential recommendations, interdependencies, and caveats for planning deployments. Finally, network operators will learn how to use DNA Center's modern interface to streamline, automate, and improve virtually any network management task.*

- Accelerate the digital transformation of your business by adopting an intent-based network architecture that is open, extensible, and programmable
- Integrate virtualization, automation, analytics, and cloud services to streamline operations and create new business opportunities
- Dive deep into hardware, software, and protocol innovations that lay the programmable infrastructure foundation for DNA
- Virtualize advanced network functions for fast, easy, and flexible deployments
- Translate business intent into device configurations and simplify, scale, and automate network operations using controllers
- Use analytics to tune performance, plan capacity, prevent threats, and simplify troubleshooting
- Learn how Software-Defined Access improves network flexibility, security, mobility, visibility, and performance
- Use DNA Assurance to track the health of clients, network devices, and applications to reveal hundreds of actionable insights
- See how DNA Application Policy supports granular application recognition and end-to-end treatment, for even encrypted applications
- Identify malware, ransomware, and other threats in encrypted traffic

### Implementing VersaStack with Cisco ACI Multi-Pod and IBM HyperSwap for High Availability

*IBM Redbooks The IBM HyperSwap® high availability (HA) function allows business continuity in a hardware failure, power failure, connectivity failure, or disasters, such as fire or flooding. It is available on the IBM SAN Volume Controller and IBM FlashSystem products. This IBM Redbooks publication covers the preferred practices for implementing Cisco VersaStack with IBM HyperSwap. The following are some of the topics covered in this book: Cisco Application Centric Infrastructure to showcase Cisco's ACI with Nexus 9Ks Cisco Fabric Interconnects and Unified Computing System (UCS) management capabilities Cisco Multilayer Director Switch (MDS) to showcase fabric channel connectivity Overall IBM HyperSwap solution architecture Differences between HyperSwap and Metro Mirroring, Volume Mirroring, and Stretch Cluster Multisite IBM SAN Volume Controller (SVC) deployment to showcase HyperSwap configuration and capabilities This book is intended for pre-sales and post-sales technical support professionals and storage administrators who are tasked with deploying a VersaStack solution with IBM HyperSwap.*

## NX-OS and Cisco Nexus Switching

### Next-Generation Data Center Architectures

*Cisco Press Cisco® Nexus switches and the new NX-OS operating system are rapidly becoming the new de facto standards for data center distribution/aggregation layer networking. NX-OS builds on Cisco IOS to provide advanced features that will be increasingly crucial to efficient data center operations. NX-OS and Cisco Nexus Switching is the definitive guide to utilizing these powerful new capabilities in enterprise environments. In this book, three Cisco consultants cover every facet of deploying, configuring, operating, and troubleshooting NX-OS in the data center. They review the key NX-OS enhancements for high availability, virtualization, In-Service Software Upgrades (ISSU), and security. In this book, you will discover support and configuration best practices for working with Layer 2 and Layer 3 protocols and networks, implementing multicasting, maximizing serviceability, providing consistent network and storage services, and much more. The authors present multiple command-line interface (CLI) commands, screen captures, realistic configurations, and troubleshooting tips—all based on their extensive experience working with customers who have successfully deployed Nexus switches in their data centers. Learn how Cisco NX-OS builds on and differs from IOS Work with NX-OS user modes, management interfaces, and system files Configure Layer 2 networking: VLANs/private VLANs, STP, virtual port channels, and unidirectional link detection Configure Layer 3 EIGRP, OSPF, BGP, and First Hop Redundancy Protocols (FHRPs) Set up IP multicasting with PIM, IGMP, and MSDP Secure NX-OS with SSH, Cisco TrustSec, ACLs, port security, DHCP snooping, Dynamic ARP inspection, IP Source Guard, keychains, Traffic Storm Control, and more Build high availability networks using process modularity and restart, stateful switchover, nonstop forwarding, and in-service software upgrades Utilize NX-OS embedded serviceability, including Switched Port Analyzer (SPAN), Smart Call Home, Configuration Checkpoint/Rollback, and NetFlow Use the NX-OS Unified Fabric to simplify infrastructure and provide ubiquitous network and storage services Run NX-OS on Nexus 1000V server-based software switches This*

book is part of the Networking Technology Series from Cisco Press®, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

## IBM Software-Defined Storage Guide

IBM Redbooks Today, new business models in the marketplace coexist with traditional ones and their well-established IT architectures. They generate new business needs and new IT requirements that can only be satisfied by new service models and new technological approaches. These changes are reshaping traditional IT concepts. Cloud in its three main variants (Public, Hybrid, and Private) represents the major and most viable answer to those IT requirements, and software-defined infrastructure (SDI) is its major technological enabler. IBM® technology, with its rich and complete set of storage hardware and software products, supports SDI both in an open standard framework and in other vendors' environments. IBM services are able to deliver solutions to the customers with their extensive knowledge of the topic and the experiences gained in partnership with clients. This IBM Redpaper™ publication focuses on software-defined storage (SDS) and IBM Storage Systems product offerings for software-defined environments (SDEs). It also provides use case examples across various industries that cover different client needs, proposed solutions, and results. This paper can help you to understand current organizational capabilities and challenges, and to identify specific business objectives to be achieved by implementing an SDS solution in your enterprise.

## Cloud Computing

### Automating the Virtualized Data Center

Cisco Press The complete guide to provisioning and managing cloud-based Infrastructure as a Service (IaaS) data center solutions. Cloud computing will revolutionize the way IT resources are deployed, configured, and managed for years to come. Service providers and customers each stand to realize tremendous value from this paradigm shift-if they can take advantage of it. Cloud Computing brings together the realistic, start-to-finish guidance they need to plan, implement, and manage cloud solution architectures for tomorrow's virtualized data centers. It introduces cloud 'newcomers' to essential concepts, and offers experienced operations professionals detailed guidance on delivering Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). This book's replicable solutions and fully-tested best practices will help enterprises, services providers, consultants, and Cisco partners meet the challenge of provisioning end-to-end cloud infrastructures. Drawing on extensive experience working with leading cloud vendors and integrators, the authors present detailed operations workflow examples, proven techniques for operating cloud-based network, compute, and storage infrastructure; a comprehensive management reference architecture; and a complete case study demonstrating rapid, lower-cost solutions design. Cloud Computing will be an indispensable resource for all network/IT professionals and managers involved with planning, implementing, or managing the next generation of cloud computing services.

- Review the key concepts needed to successfully deploy and cloud-based services
- Transition common enterprise design patterns and use cases to the cloud
- Master architectural principles and infrastructure design for 'real-time' managed IT services
- Understand the Cisco approach to cloud-related technologies, systems, and services
- Develop a cloud management architecture using ITIL, TMF, and ITU-TMN standards
- Implement best practices for cloud service provisioning, activation, and management
- Automate cloud infrastructure to simplify service delivery, monitoring and assurance
- Choose and implement the right billing/chargeback approaches for your business
- Design and build IaaS services, from start to finish
- Manage the unique capacity challenges associated with sporadic, real-time demand
- Provide a consistent and optimal cloud user experience

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.

## ACI Advanced Monitoring and Troubleshooting

ACI Advanced Monitoring and Troubleshooting provides a solid conceptual foundation and in-depth technical knowledge for monitoring and troubleshooting virtually any problem encountered during testing, deployment, or operation of Cisco Application Centric Infrastructure (ACI) infrastructure. Authored by leading ACI support experts at Cisco, it covers all you'll need to keep your ACI deployment working optimally. Coverage includes: Core ACI concepts and components, including Nexus 9000 Series platforms, APIC controllers, and protocols In-depth insight into ACI's policy model ACI fabric design options: single and multiple data centers, stretched vs. multiple fabrics, and multi-pod/multi-site Automation, orchestration, and the cloud in ACI environments ACI topology and hardware/software specifications End host and network connectivity VMM integration Network management configuration, including SNMP, AAA, and SPAN Monitoring ACI fabrics and health Getting immediate results through the NX-OS command line interface Troubleshooting use cases: fabric discovery, APIC, management access, contracts, external connectivity, leaf/spine connectivity, end-host connectivity, VMM problems, ACI multi-pod/multi-site problems, and more

## CCNP Data Center Application Centric Infrastructure

### 300-620 DCACI Official Cert Guide

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. CCNP Data Center Application Centric Infrastructure DCACI 300-620 Official Cert Guide presents you with an organized test-preparation routine using 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 CCNP Data Center Application Centric Infrastructure DCACI 300-620 exam topics \* Assess your knowledge with chapter-opening quizzes \* Review key concepts with exam preparation tasks \* Practice with realistic exam questions in the practice test software CCNP Data Center Application Centric Infrastructure DCACI 300-620 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. Leading Cisco data center technology expert Ammar Ahmadi 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 exercises, which help you drill on key concepts you must know thoroughly \* The powerful Pearson Test Prep Practice Test software, with two full exams comprised of well-reviewed, exam-realistic questions, customization options, and detailed performance reports \* 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 \* Video mentoring from the author's Complete Video Course Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, 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 CCNP Data Center Application Centric Infrastructure DCACI 300-620 exam. It tests your knowledge of Cisco switches in ACI mode, including - ACI fabric infrastructure - ACI packet forwarding - External network connectivity - Integrations - ACI management - ACI Anywhere Companion Website: The companion website contains two full practice exams, an interactive Flash Cards application, video mentoring from the author's Complete Video Course, and much more. Includes Exclusive Offers for Up to 80% Off Video Training, Practice Tests, and more Pearson Test Prep online system requirements: Browsers: Chrome version 40 and above; Firefox version 35 and above; Safari version 7; Internet Explorer 10, 11; Microsoft Edge; Opera. Devices: Desktop and laptop computers, tablets running on Android and iOS, smartphones with a minimum screen size of 4.7". Internet access required. Pearson Test Prep offline system requirements: Windows 10, Windows 8.1, Windows 7; 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 Also available from Cisco Press for CCNP Data Center DCACI study is the CCNP Data Center Application Centric Infrastructure DCACI 300-620 Official Cert Guide Premium Edition eBook and Practice Test. This digital-only certification preparation product combines an eBook with enhanced Pearson Test Prep 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

## Implementing Cisco Collaboration Applications (CAPPS) Foundation Learning Guide (CCNP Collaboration Exam 300-085 CAPPS)

Cisco Press 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 Policy Driven Data Center with ACI

# Architecture, Concepts, and Methodology

Pearson Education Use policies and Cisco® ACI to make data centers more flexible and configurable--and deliver far more business value Using the policy driven data center approach, networking professionals can accelerate and simplify changes to the data center, construction of cloud infrastructure, and delivery of new applications. As you improve data center flexibility, agility, and portability, you can deliver far more business value, far more rapidly. In this guide, Cisco data center experts Lucien Avramov and Maurizio Portolani show how to achieve all these benefits with Cisco Application Centric Infrastructure (ACI) and technologies such as python, REST, and OpenStack. The authors explain the advantages, architecture, theory, concepts, and methodology of the policy driven data center. Next, they demonstrate the use of python scripts and REST to automate network management and simplify customization in ACI environments. Drawing on experience deploying ACI in enterprise data centers, the authors review design considerations and implementation methodologies. You will find design considerations for virtualized datacenters, high performance computing, ultra-low latency environments, and large-scale data centers. The authors walk through building multi-hypervisor and bare-metal infrastructures, demonstrate service integration, and introduce advanced telemetry capabilities for troubleshooting. Leverage the architectural and management innovations built into Cisco® Application Centric Infrastructure (ACI) Understand the policy driven data center model Use policies to meet the network performance and design requirements of modern data center and cloud environments Quickly map hardware and software capabilities to application deployments using graphical tools--or programmatically, via the Cisco APIC API Increase application velocity: reduce the time needed to move applications into production Define workload connectivity instead of (or along with) subnets, VLAN stitching, and ACLs Use Python scripts and REST to automate policy changes, parsing, customization, and self-service Design policy-driven data centers that support hypervisors Integrate OpenStack via the Cisco ACI APIC OpenStack driver architecture Master all facets of building and operating multipurpose cloud architectures with ACI Configure ACI fabric topology as an infrastructure or tenant administrator Insert Layer 4-Layer 7 functions using service graphs Leverage centralized telemetry to optimize performance; find and resolve problems Understand and familiarize yourself with the paradigms of programmable policy driven networks

## CCNA Cloud CLDFND 210-451 Official Cert Guide

### Exam 55 Offic Cert Guide

Cisco Press 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 Cloud CLDFND 210-451 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCNA Cloud CLDFND 210-451 Official Cert Guide. This eBook does not include the practice exams that comes with the print edition. CCNA Cloud CLDFND 210-451 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 Cloud CLDFND 210-451 Official Cert Guide focuses specifically on the objectives for the Cisco CCNA CLDFND 210-451 exam. Leading data center network architect Gustavo A.A. Santana 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. 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 CLDFND exam, including: Cloud characteristics Cloud service models (IaaS, SaaS, PaaS) Cloud deployment (public, private, community, hybrid) Cisco Intercloud Solution Cloud Compute (Cisco UCS) Cloud Networking (DC network architectures, infrastructure virtualization) Cloud Storage basics (provisioning, access, concepts, devices, infrastructures) CCNA Cloud CLDFND 210-451 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>

## Building Data Centers with VXLAN BGP EVPN

### A Cisco NX-OS Perspective

Cisco Press The complete guide to building and managing next-generation data center network fabrics with VXLAN and BGP EVPN This is the only comprehensive guide and deployment reference for building flexible data center network fabrics with VXLAN and BGP EVPN technologies. Writing for experienced network professionals, three leading Cisco experts address everything from standards and protocols to functions, configurations, and operations. The authors first explain why and how data center fabrics are evolving, and introduce Cisco's fabric journey. Next, they review key switch roles, essential data center network fabric terminology, and core concepts such as network attributes, control plane details, and the associated data plane encapsulation. Building on this foundation, they provide a deep dive into fabric semantics, efficient creation and addressing of the underlay, multi-tenancy, control and data plane interaction, forwarding flows, external interconnectivity, and service appliance deployments. You'll find detailed tutorials, descriptions, and packet flows that can easily be adapted to accommodate customized deployments. This guide concludes with a full section on fabric management, introducing multiple opportunities to simplify, automate, and orchestrate data center network fabrics.

*Learn how changing data center requirements have driven the evolution to overlays, evolved control planes, and VXLAN BGP EVPN spine-leaf fabrics Discover why VXLAN BGP EVPN fabrics are so scalable, resilient, and elastic Implement enhanced unicast and multicast forwarding of tenant traffic over the VXLAN BGP EVPN fabric Build fabric underlays to efficiently transport uni- and multi-destination traffic Connect the fabric externally via Layer 3 (VRF-Lite, LISP, MPLS L3VPN) and Layer 2 (VPC) Choose your most appropriate Multi-POD, multifabric, and Data Center Interconnect (DCI) options Integrate Layer 4-7 services into the fabric, including load balancers and firewalls Manage fabrics with POAP-based day-0 provisioning, incremental day 0.5 configuration, overlay day-1 configuration, or day-2 operations*

## CCNA Data Center: Introducing Cisco Data Center Technologies Study Guide

### Exam 640-916

*John Wiley & Sons Cisco has announced big changes to its certification program. As of February 24, 2020, all current certifications will be retired, and Cisco will begin offering new certification programs. The good news is if you're working toward any current CCNA certification, keep going. You have until February 24, 2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have until February 23, 2020 to complete your CCNA certification in the current program. Likewise, if you're thinking of completing the current CCENT/ICND1, ICND2, or CCNA Routing and Switching certification, you can still complete them between now and February 23, 2020. Complete theory and practice for the CCNA Data Center Technologies exam CCNA Data Center, Introducing Cisco Data Center Technologies Study Guide is your comprehensive study guide for exam 640-916. Authors Todd Lammler and Todd Montgomery, authorities on Cisco networking, guide you through 100% of all exam objectives with expanded coverage of key exam topics, and hands-on labs that help you become confident in dealing with everyday challenges. You'll get access to the free Nexus switch simulator that allows you to try your hand at what you've learned without expensive software, plus bonus study aids, such as electronic flashcards, a practice exam, and a searchable PDF glossary of terms. Coverage includes Data Center networking and virtualization, storage networking, unified fabric, Cisco UCS configuration, Data Center services, and much more, for complete exam preparation. This is your guide to study for the entire second (and final) exam required for certification Review networking principles, products, and technologies Understand Nexus 1000V and Data Center virtualization Learn the principles and major configurations of Cisco UCS Practice hands-on solutions you'll employ on the job Prepare for using Cisco's Unified Data Center, which unifies computing, storage, networking, and management resources*

## Programming and Automating Cisco Networks

### A guide to network programmability and automation in the data center, campus, and WAN

*Cisco Press Improve operations and agility in any data center, campus, LAN, or WAN Today, the best way to stay in control of your network is to address devices programmatically and automate network interactions. In this book, Cisco experts Ryan Tischer and Jason Gooley show you how to do just that. You'll learn how to use programmability and automation to solve business problems, reduce costs, promote agility and innovation, handle accelerating complexity, and add value in any data center, campus, LAN, or WAN. The authors show you how to create production solutions that run on or interact with Nexus NX-OS-based switches, Cisco ACI, Campus, and WAN technologies. You'll learn how to use advanced Cisco tools together with industry-standard languages and platforms, including Python, JSON, and Linux. The authors demonstrate how to support dynamic application environments, tighten links between apps and infrastructure, and make DevOps work better. This book will be an indispensable resource for network and cloud designers, architects, DevOps engineers, security specialists, and every professional who wants to build or operate high-efficiency networks. Drive more value through programmability and automation, freeing resources for high-value innovation Move beyond error-prone, box-by-box network management Bridge management gaps arising from current operational models Write NX-OS software to run on, access, or extend your Nexus switch Master Cisco's powerful on-box automation and operation tools Manage complex WANs with NetConf/Yang, ConfD, and Cisco SDN Controller Interact with and enhance Cisco Application Centric Infrastructure (ACI) Build self-service catalogs to accelerate application delivery Find resources for deepening your expertise in network automation*

## IBM FlashSystem V9000 in a VersaStack Environment

*IBM Redbooks VersaStack, an IBM and Cisco integrated infrastructure solution, combines computing, networking, and storage into a single integrated system. It combines the Cisco Unified Computing System™ (Cisco UCS®) Integrated Infrastructure with IBM Spectrum Virtualize™, which includes IBM FlashSystem® V9000 and IBM Storwize® storage offerings, for quick deployment and rapid time to value for the implementation of modern infrastructures. With comprehensive reference architectures that include Cisco Validated Designs (CVDs), IBM Redbooks® publications, sizing guidelines, and single-call support, the solution sets a benchmark to accelerate data center infrastructure deployment and to help manage information and resources efficiently amid business change. This IBM Redbooks Solution Guide provides an overview of the VersaStack solution that uses IBM FlashSystem V9000 as an all-flash storage layer. This VersaStack solution delivers extraordinary levels of storage virtualization performance and efficiency in a networking infrastructure, and compute capabilities that are based on the Cisco UCS. This guide explains how the IBM FlashSystem*

V9000 all-flash storage arrays add performance by using IBM MicroLatency®, macro efficiency, superior reliability, and software-defined storage enterprise features to the cloud computing-ready VersaStack solution. This guide is intended for individuals who want to learn more about the VersaStack integrated solution.

## Connecting Networks Companion Guide

Pearson Education "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.

## CCNA Cloud CLDADM 210-455 Official Cert Guide

### Exam 60 Offic Cert ePub \_1

Cisco Press 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. Learn, prepare, and practice for CCNA Cloud CLDADM 210-455 exam success with this Official Cert Guide from Pearson IT Certification, a leader in IT Certification. Master CCNA Cloud CLDADM 210-455 exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks CCNA Cloud CLDADM 210-455 Official Cert Guide is a best-of-breed exam study guide. Cisco cloud experts Chris Jackson, Hank Preston, and Steve Wasko 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 book presents you with an organized test-preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The study guide helps you master all the topics on the CLDADM exam, including Cloud operating models, journeys, and roadmaps Cisco cloud automation and orchestration suites Cloud administration and operations: managing users, groups, and virtual machines Automating cloud infrastructure with UCS Director Building service catalogs and user portals Deploying virtual application containers Chargeback, billing, and reporting Performance and capacity management Cloud health monitoring and maintenance Cloud troubleshooting

## Cisco UCS Cookbook

Packt Publishing Ltd Over 40 practical recipes to get your hands dirty with the powerful Cisco UCS and overcome various challenges About This Book Master the skills of minimizing cost, enabling your business to work faster by reducing cycle times for reporting and improving overall revenue Work through hands-on recipes for efficient deployment approaches, see computing techniques, and explore new operational models with UCS Render a better work-flow management, ensure effective monitoring, and learn new deployment paradigms for the operational infrastructure with the help of this book Who This Book Is For This book is for competent system/network or storage administrators who are working with Cisco UCS, but now want to learn new ways to compute UCS. What You Will Learn Familiarize yourself with information on the latest information on memory management practices, virtualization architectures, and the specific technical advantages of UCS Get a concrete understanding of integrating processes and techniques to ensure effective convergence of LAN/SAN Get to know the best practices of Cisco UCS, EMC Storage, and VMware vSphere Master migrating data from other band servers or Blade to Cisco UCS Comprehend how to replicate and back up UCS to remote sites UCS Assimilate innovative techniques to deploy UCS to leverage its full potential Gather information on installing and configuring automatic and manual Pinning Discover ways to integrate a system in Cisco UCS In Detail Cisco Unified Computing System (UCS) is a data center server platform that is used for computing, deploying, and storing resources in data center environments. This cookbook aims to teach you about various tasks you can implement to improve your existing method of configuring and deploying UCS. You will start by learning how to upgrade your firmware on Brocade and Cisco Fibre Channel Switch and will move on to enhance your knowledge of LAN connectivity. We will then discuss how to configure Windows 2008 and 2012 local boot in Cisco UCS. Next, you will learn how to install the operating system on Cisco UCS and use Cisco UCS Power Calculator to calculate the UCS consumption. Finally, we'll take a look at backup solutions. By the end of the book, you will know several ways to build and compute in data center environment using Cisco UCS. Style and approach This guide explains every task in a conversational and easy-to-follow style. You can open this book up to the task you want to learn and will be able to perform that task by the end of the recipe.

## Enterprise Network Testing

### Testing Throughout the Network Lifecycle to Maximize

## Availability and Performance

Pearson Education 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 § Leverage 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.

## Deploying ACI

### The complete guide to planning, configuring, and managing Application Centric Infrastructure

Cisco Press Use ACI fabrics to drive unprecedented value from your data center environment With the Cisco Application Centric Infrastructure (ACI) software-defined networking platform, you can achieve dramatic improvements in data center performance, redundancy, security, visibility, efficiency, and agility. In Deploying ACI, three leading Cisco experts introduce this breakthrough platform, and walk network professionals through all facets of design, deployment, and operation. The authors demonstrate how ACI changes data center networking, security, and management; and offer multiple field-proven configurations. Deploying ACI is organized to follow the key decision points associated with implementing data center network fabrics. After a practical introduction to ACI concepts and design, the authors show how to bring your fabric online, integrate virtualization and external connections, and efficiently manage your ACI network. You’ll master new techniques for improving visibility, control, and availability; managing multitenancy; and seamlessly inserting service devices into application data flows. The authors conclude with expert advice for troubleshooting and automation, helping you deliver data center services with unprecedented efficiency. Understand the problems ACI solves, and how it solves them Design your ACI fabric, build it, and interface with devices to bring it to life Integrate virtualization technologies with your ACI fabric Perform networking within an ACI fabric (and understand how ACI changes data center networking) Connect external networks and devices at Layer 2/Layer 3 levels Coherently manage unified ACI networks with tenants and application policies Migrate to granular policies based on applications and their functions Establish multitenancy, and evolve networking, security, and services to support it Integrate L4–7 services: device types, design scenarios, and implementation Use multisite designs to meet rigorous requirements for redundancy and business continuity Troubleshoot and monitor ACI fabrics Improve operational efficiency through automation and programmability