Symmetrix Configuration Management Student Guide

"This book covers a wide spectrum of topics relevant to implementing and managing a modern data center. The chapters are comprehensive and the flow of concepts is easy to understand." -Cisco reviewer Gain a practical knowledge of data center concepts To create a well-designed data center (including storage and network architecture, VoIP implementation, and server consolidation) you must understand a variety of key concepts and technologies. This book explains those factors in a way that smoothes the path to implementation and management. Whether you need an introduction to the technologies, a refresher course for IT managers and data center personnel, or an additional resource for advanced study, you'll find these guidelines and solutions provide a solid foundation for building reliable designs and secure data center policies. * Understand the common causes and high costs of service outages * Learn how to measure high availability and achieve maximum levels * Design a data center using optimum physical, environmental, and technological elements * Explore a modular design for cabling, Points of Distribution, and WAN connections from ISPs * See what must be considered when consolidating data center resources * Expand your knowledge of best practices and security * Create a data center environment that is user- and manager-friendly * Learn how high availability, clustering, and disaster recovery solutions can be deployed to protect critical information * Find out how to use a single network infrastructure for IP data, voice, and storage

This book constitutes the refereed proceedings of the Second International Conference on High Performance Computing and Communications, HPCC 2006. The book presents 95 revised full papers, addressing all current issues of parallel and distributed systems and high performance computing and communication. Coverage includes networking protocols, routing, and algorithms, languages and compilers for HPC, parallel and distributed architectures and algorithms, wireless, mobile and pervasive computing, Web services, peer-to-peer computing, and more.

This IBM ® Redbooks ® publication provides a technical overview of the features, functions, and enhancements that are available in IBM i 7.2, including all the available Technology Refresh (TR) levels, from TR1 to TR3. This publication provides a summary and brief explanation of the many capabilities and functions in the operating system. It also describes many of the licensed programs and application development tools that are associated with IBM i. The information that is provided in this book is useful for clients, IBM Business Partners, and IBM service professionals that are involved with planning, supporting, upgrading, and implementing IBM i 7.2 solutions.

Applied Well Cementing Engineering delivers the latest technologies, case studies, and procedures to identify the challenges, understand the framework, and implement the solutions for today’s cementing and petroleum engineers.

Covering the basics and advances, this contributed reference gives the complete design, flow and job execution in a structured process. Authors, collectively, bring together knowledge from over 250 years of experience in cementing and condense their knowledge into this book. Real-life successful and unsuccessful case studies are included to explain lessons learned about the technologies used today. Other topics include job simulation, displacement efficiency, and hydraulics. A practical guide for cementing engineer, Applied Well Cementing Engineering, gives a critical reference for better job execution. Provides a practical guide and industry best practices for both new and seasoned engineers Independent chapters enable the readers to quickly access specific subjects Gain a complete framework of a cementing job with a detailed road map from casing equipment to plug and abandonment

CMG Proceedings Subject Index, 1976-1992

Data Center Virtualization Fundamentals

Information Storage and Management

Backing Up DB2 Using Tivoli Storage Manager

Managing Information Technology

Preparing for the VCDX Panel Defense

This IBM® Redbooks® Product Guide publication describes the IBM FlashSystem® 7200 solution, which is a comprehensive, all-flash, and NVMe-enabled enterprise storage solution that delivers the full capabilities of IBM FlashCore® technology. In addition, it provides a rich set of software-defined storage (SDS) features, including data reduction and de-duplication, dynamic tiering, thin-provisioning, snapshots, cloning, replication, data copy services, and IBM HyperSwap® for high availability (HA). Scale-out and scale-up configurations further enhance capacity and throughput for better availability

From the leading authority on MVS, this unique guide covers IBM's groundbreaking MVS Version 5 operating system. Systems programmers dealing with complex MVS performance and tuning issues will appreciate Stephen Samson's engaging treatment of a difficult subject.

This self-contained introduction to practical robot kinematics and dynamics includes a comprehensive treatment of robot control. It provides background material on terminology and linear transformations, followed by coverage of kinematics and inverse kinematics, dynamics, manipulator control, robust control, force control, use of feedback in nonlinear systems, and adaptive control. Each topic is supported by examples of specific applications. Derivations and proofs are included in many cases. The book includes many worked examples, examples illustrating all aspects of the theory, and problems.

When you hear IBM® Tivoli® Storage Manager, the first thing that you typically think of is data backup. Tivoli Storage Manager is the premier storage management solution for mixed platform environments. Businesses face a tidal wave of information and data that seems to increase daily. The ability to successfully and efficiently manage information and data has become imperative. The Tivoli Storage Manager family of products helps businesses successfully gain better control and efficiently manage the information tidal wave through significant enhancements in

multiple facets of data protection. Tivoli Storage Manager is a highly scalable and available data protection solution. It takes data protection scalability to the next level with a relational database, which is based on IBM DB2® technology. Greater availability is delivered through enhancements such as online, automated database reorganization. This IBM Redbooks® publication describes the evolving set of data-protection challenges and how capabilities in Tivoli Storage Manager can best be used to address those challenges. This book is more than merely a description of new and changed functions in Tivoli Storage Manager; it is a guide to use for your overall data protection solution.

The GNU Source-level Debugger

OS/390 Edition, with MVS/ESA SP Version 5

Servers, Storage, and Voice over IP

Fault Tolerance, Analysis, and Design

How to Cheat at Configuring Exchange Server 2007

Cisco Cookbook

The Perfect Reference for the Multitasked System Administrators The new version of Exchange is an ambitious overhaul that tries to balance the growing needs for performance, cost effectiveness, and security. For the average system administrator, it will present a difficult migration path from earlier versions and a vexing number of new features. How to Cheat will help you get Exchange Server 2007 up and running as quickly and safely as possible. • Understand Exchange 2007 Prerequisites Review hardware and software requirements, Active Directory requirements, and more. • Manage Recipient Filtering Create a custom MMC that contains the Exchange 2007 Recipients work center, which can be used, for example, by the helpdesk staff in your organization. • Manage Outlook Anywhere Outlook Anywhere makes it possible for your end users to remotely access their mailboxes from the Internet using their full Outlook clients. • Manage Outlook Web Access 2007 See how Outlook Web Access 2007 was completely rewritten in managed code to make it scale even better. • Use the Exchange 2007 Queue Viewer You can now view information about queues and examine the messages held within them. • Master Powerful Out-of-the-Box Spam Protection The Edge Transport server supports SMTP, provides several antispam filtering agents, and supports antivirus extensibility. • Manage a Single-Copy Cluster-Based Setup SCC-based cluster provides service failover and still has a single point of failure when it comes to the databases. • Recover Mailbox Databases Use the improved database portability feature to port and recover a Mailbox database to any server in the Exchange 2007 organization. Essential information for the multi-tasked System Administrator charged perform everyday tasks Includes the latest coverage of the major new release of Exchange Server Emphasizes best-practice security measures for all areas and in particular the area of remote access via Outlook

Information Storage and ManagementStoring, Managing, and Protecting Digital Information in Classic, Virtualized, and Cloud EnvironmentsJohn Wiley & Sons

This IBM® Redbooks® publication describes several of the preferred practices and describes the performance gains that can be achieved by

implementing the IBM SAN Volume Controller powered by IBM Spectrum® Virtualize V8.4. These practices are based on field experience. This book highlights configuration guidelines and preferred practices for the storage area network (SAN) topology, clustered system, back-end storage, storage pools, and managed disks, volumes, Remote Copy services, and hosts. Then, it provides performance guidelines for IBM SAN Volume Controller, back-end storage, and applications. It explains how you can optimize disk performance with the IBM System Storage Easy Tier® function. It also provides preferred practices for monitoring, maintaining, and troubleshooting IBM SAN Volume Controller. This book is intended for experienced storage, SAN, and IBM SAN Volume Controller administrators and technicians. Understanding this book requires advanced knowledge of the IBM SAN Volume Controller, IBM FlashSystem, and SAN environments.

The spiraling growth of digital information makes the ISM book a "must have" addition to your IT reference library. This exponential growth has driven information management technology to new levels of sophistication and complexity, exposing a skills gap that challenge IT managers and professionals alike. The ISM book, written by storage professionals from EMC Corporation, takes an ‘open’ approach to teaching information storage and management, focusing on concepts and principles – rather that product specifics – that can be applied in all IT environments The book enables existing and aspiring IT professionals, students, faculty, and those simply wishing to gain deeper insight to this emerging pillar of IT infrastructure to achieve a comprehensive understanding of all segments of information storage technology. Sixteen chapters are organized into four sections. Advanced topics build upon the topics learned in previous chapters. Section 1, "Information Storage and Management for Today’s World": Four chapters cover information growth and challenges, define a storage system and its environment, review the evolution of storage technology, and introduce intelligent storage systems. Section 2, "Storage Options and Protocols": Six chapters cover the SCSI and Fibre channel architecture, direct-attached storage (DAS), storage area networks (SANs), network-attached storage (NAS), Internet Protocol SAN (IP-SAN), content-addressed storage (CAS), and storage virtualization. Section 3, "Business Continuity and Replication": Four chapters introduce business continuity, backup and recovery, local data replication, and remote data replication. Section 4, "Security and Administration": Two chapters cover storage security and storage infrastructure monitoring and management. The book’s supplementary web site provides up-to-date information on additional learning aids and storage certification opportunities.

Storage Implementation in VSphere 5. 0

The NASTRAN Theoretical Manual

MVS Performance Management

Help for Storage Administrators

A Manager's Guide to Harnessing Technology

Testing Throughout the Network Lifecycle to Maximize Availability and Performance

Data is the lifeblood of modern business, and modern data centers have extremely demanding requirements for size, speed, and reliability. Storage Area Networks (SANs) and Network Attached Storage (NAS) allow organizations to manage and back up huge file systems quickly, thereby keeping their lifeblood flowing. W. Curtis Preston's insightful book takes you through the ins and outs of building and managing large data centers using SANs and NAS. As a network administrator you're aware that multi-terabyte data stores are common and petabyte data stores are starting to appear. Given this much data, how do you ensure that it is available all the time, that access times and throughput are reasonable, and that the data can be backed up and restored in a timely manner? SANs and NAS provide solutions that help you work through these problems, with special attention to the difficulty of backing up huge data stores. This book explains the similarities and differences of SANs and NAS to help you determine which, or both, of these complementing technologies are appropriate for your network. Using SANs, for instance, is a way to share multiple devices (tape drives and disk drives) for storage, while NAS is a means for centrally storing files so they can be shared. Preston exams each technology with a vendor neutral approach, starting with the building blocks of a SAN and how they can be assembled for effective storage solutions. He covers day-to-day management and backup and recovery for both SANs and NAS in detail. Whether you're a seasoned storage administrator or a network administrator charged with taking on this role, you'll find all the information you need to make informed architecture and data management decisions. The book fans out to explore technologies such as RAID and other forms of monitoring that will help complement your data center. With an eye on the future, other technologies that might affect the architecture and management of the data center are explored. This is sure to be an essential volume in any network administrator's or storage administrator's library.

Storage virtualization has come of age, offering IT professionals powerful new ways to simplify infrastructure, streamline management, improve utilization, and reduce costs. Now, the author of the best-selling storage books IP SANs and Designing Storage Area Networks presents an up-to-the-minute, vendor-neutral overview of storage virtualization in all its forms.

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.

This IBM® Redbooks® publication describes the positioning of the IBM Systems Director in the complete management range. It also compares the IBM Systems Director with the IBM Flex Systems Manager (FSM) and describes the environments for which each tool is best suited. This publication helps you plan, install, tailor, and configure the IBM Systems Director on different platforms. It contains information about required system resources and which network ports are used. It shows how to use the Workload Estimator to select the appropriate hardware for IBM Systems Director server and provides information about the IBM Systems Director Editions. Best practices are covered for the basic management tasks that are available in IBM Systems Director, including how to perform discovery; how to collect inventory on discovered resources; how to deploy agent, driver, and firmware updates; how to manage hardware events; and other miscellaneous tasks. An overview of best practices is provided for using IBM Systems Director VMControlTM. Systems Director VMControl is a cross-platform product that assists you in rapidly deploying virtual appliances to create virtual servers that are configured with the operating system and software applications that you want. It also enables you to group resources into system pools, which enable you to centrally manage and control the different workloads in your environment. The following plug-in offerings are described: Energy monitoring and management features offered by IBM Systems Director Active Energy ManagerTM along with the best practice, which needs to be followed in using the IBM Systems Director Active Energy Manager. The IBM AIX® Profile Manager is a tool that can help implement and monitor the security of all AIX servers in a production environment but also implement and monitor the system compliance of those AIX servers. Best practices and the most important questions to ask before creating Workload Partition Manager (WPAR) and WPAR Manager infrastructure. In addition, how you can manage and relocate WPARs using WPAR Manager graphical interface and the command-line interface. Network Control basic functionalities and how to plan for Network Control deployments and also a number of common scenarios with best practices. The IBM Systems Director Service and Support Manager describes how to set up and how to handle serviceable events.

Best practices for the Storage Monitoring and Management capabilities offered by IBM Systems Director server. This book is for IBM IT specialists and IT architects, IBM Business Partners, and clients, who are utilizing or considering implementing IBM Systems Director.

Reliability of Computer Systems and Networks

IBM SAN Volume Controller Best Practices and Performance Guidelines

Certification Guide Series

Information Systems

Oracle Automatic Storage Management: Under-the-Hood & Practical Deployment Guide

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.

Examines a broad range of research and case studies that throws light on potential, social and human factors which determine the success of information technology.

For upper-level undergraduate and graduate level MIS courses.ThisMIS text gives students and active managers a thorough and practical guide to IT management practices and issues."

Expert Oracle RAC Performance Diagnostics and Tuning provides comprehensive coverage of the features, technology and principles for testing and tuning RAC databases. The book takes a deep look at optimizing RAC databases by following a methodical approach based on scientific analysis rather than using a speculative approach, twisting and turning knobs and gambling on the system. The book starts with the basic concepts of tuning methodology, capacity planning, and architecture. Author Murali Vallath then dissects the various tiers of the testing implementation, including the operating system, the network, the application, the storage, the instance, the database, and the grid infrastructure. He also introduces tools for performance optimization and thoroughly covers each aspect of the tuning process, using many real-world examples, analyses, and solutions from the field that provide you with a solid,

practical, and replicable approach to tuning a RAC environment. The book concludes with troubleshooting guidance and quick reference of all the scripts used in the book. Expert Oracle RAC Performance Diagnostics and Tuning covers scenarios and details never discussed before in any other performance tuning books. If you have a RAC database, this book is a requirement. Get your copy today. Takes you through optimizing the various tiers of the RAC environment. Provides real life case studies, analysis and solutions from the field. Maps a methodical approach to testing, tuning and diagnosing the cluster

iSCSI Implementation and Best Practices on IBM Storwize Storage Systems

Enterprise Network Testing

High Performance Computing and Communications

Expert Oracle RAC Performance Diagnostics and Tuning

Data Center Fundamentals

IBM Tivoli Netcool/OMNIbus V7.2 Implementation

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

constructing efficient networks, understanding new technologies, and building successful careers.

Lay the foundations for data center virtualization using VMware vSphere 6 and strengthen your understanding of its power About This Book Learn how server virtualization is achieved and how a virtual infrastructure is built using VMware's products and solutions. Design to create a scalable and responsive virtualization platform for hosting the virtual machine workloads of a business. Manage compute, network and storage resources of a virtual infrastructure. Relevant conceptual diagrams, flowcharts and screen-captures enable in-depth comprehension of the concepts. Also, the concise writing style makes this book a very easy read. Who This Book Is For This is a book for any experienced technologist who is new to the realm of Data Center virtualization wanting to find a way to get a head start in learning how to design, implement and manage a modern day datacenter virtualized using VMware's core infrastructure solutions. It could also act a comprehensive reference guide for Infrastructure Architects and System Administrators to aid them in their day to day activities. This book could easily find its place in reference materials used by professionals for VCP and VCAP certification exams. Keep in mind however that the book is not written to follow as a blueprint for either of the exams. What You Will Learn Understand the architecture of the hypervisor and learn how to install deploy and configure ESXi hosts Find out what forms a VMware Virtual Machine can take and also learn how to create and manage them Familiarize yourself with the concepts of vSphere Storage and learn how to present and manage storage in a vSphere environment Create and manage software switching constructs such as the vNetwork Standard Switch and vNetwork Distributed Switches Monitor the performance of a vSphere environment using tools such as the vCenter Performance Graphs and 'esxtop' Manage SSL certificates in a vSphere environment Upgrade and patch a vSphere environment using vSphere Update Manager In Detail Computer virtualization is a method to enable the running of multiple application workloads on a machine to achieve efficient utilization and reduce the number of physical machines in a data center. This has now become the foundation of many modern day data centers. What began as a technology to virtualize x86 architecture has now grown beyond the limits of a server's hardware and into the realm of storage and network virtualization. VMware is currently the market leader in developing data center virtualization solutions. This book goes into the details of designing and implementing VMware solutions that form the foundation of a VMware infrastructure. The book begins by introducing you to the concepts of server virtualization followed by the architecture of VMware's hypervisor – ESXi and then by its installation and configuration. You then learn what is required to manage a vSphere environment and configure advanced management capabilities of vCenter. Next you are taken through topics on vSphere Networking, Storage, ESXi Clustering, Resource Management and Virtual Machine Management. You will then be

introduced to SSL Certificate Management and its use in a vSphere environment. Finally, you will learn about the lifecycle management of a vSphere environment by effectively monitoring, patching and upgrading vSphere components using Update Manager. By the end of the book, you will know how to use VMware's vSphere suite of components to lay the foundation of a modern day virtual infrastructure. Style and approach This is an easy-to-follow guide that will give you everything you need to fully understand the concepts involved in data center virtualization. The screenshots, concept diagrams, and flowcharts included will help you understand the subjects discussed better.

For repairing performance loss or maximizing current potential, this guide aims to provide the information and conceptual framework that will enable readers to be performance experts. Includes information on processor performance, application profiling and hardware considerations.

Prepare to succeed at your VCDX panel defense and gain world-class knowledge for designing complex VMware environments VMware Certified Design Expert (VCDX) is the highest level of VMware certification, achieved by dedicated professionals who have demonstrated exceptional skill in VMware enterprise deployments. To earn a VCDX, professionals must create a complete enterprise VMware design and undergo an arduous defense at the hands of some of the world's most sophisticated VMware experts. Now, for the first time, there's a comprehensive guide to VCDX defense: VCDX Boot Camp. Based on the legendary standing-room-only boot camps led by VCDX co-creator John Arrasjid, this guide captures the unsurpassed personal experience of three pioneering VCDX certification holders, program developers, and defense panelists. John Arrasjid, Ben Lin, and Mostafa Khalil cover everything you need to know to prepare for certification. They demystify the entire VCDX defense process, clearly explain its format and prerequisites, and offer indispensable tips for maximizing your likelihood of success. Detailed chapters on both design and troubleshooting offer four complete scenarios explaining exactly what VCDX panelists will expect from your defense. Learn how to think like a VCDX, discovering powerful insights and best practices for designing your own world-class virtualized environment. Coverage includes • Authoritative preparation guidance (including expert insights into scheduling your preparation and defense) • Tips for conducting mock defenses, boot camps, and study sessions with your colleagues • How to select, create, and document a superior, defensible design • How to make design choices and incorporate design patterns that support the VCDX blueprint • How to confidently defend your skills in architecture, designing new solutions, and troubleshooting design or implementation flaws • Proven tips for responding to tough questions from panelists • Detailed example defenses of designs incorporating VCDX-DCV, VCDX-Cloud, and VCDX-DT vmwarepress.com vmware.com/go/vcdx

Concepts, Methods, and Technologies

Informationweek

Robot Dynamics And Control
Using SANs and NAS
VMware Software-Defined Storage
IBM Systems Director 6.3 Best Practices

The new edition of a bestseller, now revised and update throughout! This new edition of the unparalleled bestseller serves as a full training course all in one and as the world's largest data storage company, EMC is the ideal author for such a critical resource. They cover the components of a storage system and the different storage system models while also offering essential new material that explores the advances in existing technologies and the emergence of the "Cloud" as well as updates and vital information on new technologies. Features a separate section on emerging area of cloud computing Covers new technologies such as: data de-duplication, unified storage, continuous data protection technology, virtual provisioning, FCoE, flash drives, storage tiering, big data, and more Details storage models such as Network Attached Storage (NAS), Storage Area Network (SAN), Object Based Storage along with virtualization at various infrastructure components Explores Business Continuity and Security in physical and virtualized environment Includes an enhanced Appendix for additional information This authoritative guide is essential for getting up to speed on the newest advances in information storage and management.
With computers becoming embedded as controllers in everything fromnetwork servers to the routing of subway schedules to NASAmissions, there is a critical need to ensure that systems continueto function even when a component fails. In this book, bestsellingauthor Martin Shooman draws on his expertise in reliabilityengineering and software engineering to provide a complete andauthoritative look at fault tolerant computing. He clearly explainsall fundamentals, including how to use redundant elements in systemdesign to ensure the reliability of computer systems andnetworks. Market: Systems and Networking Engineers, Computer Programmers, ITProfessionals.

Build and manage a scalable storage infrastructure with Oracle Automatic Storage Management Streamline data management and provisioning using Oracle Automatic Storage Management (Oracle ASM) and the detailed information contained in this exclusive Oracle Press resource. Written by a team of database experts, Oracle Automatic Storage Management: Under-the-Hood & Practical Deployment Guide explains how to build and maintain a dynamic, highly available Oracle database storage environment. Inside, you'll learn how to configure storage for Oracle ASM, build disk groups, use data striping and mirroring, and optimize performance. You'll also learn how to ensure consistency across server and storage platforms, maximize data redundancy, and administer Oracle ASM from the command line. Manage Oracle ASM Instances and configure Oracle RDBMS instances to

leverage Oracle ASM Define, discover, and manage disk storage under Oracle ASM Create external, normal-redundancy, and high-redundancy disk groups Add and remove Oracle ASM storage without affecting RDMS instance availability Learn how Oracle ASM provides even I/O distribution Work with Oracle ASM directories, files, templates, and aliases Improve storage performance and integrity using the ASMLIB API Simplify system administration with the Oracle ASM command line interface Understand key internal Oracle ASM structures and algorithms

This IBM® Redbooks® publication captures several of the preferred practices and describes the performance gains that can be achieved by implementing the IBM System Storage® SAN Volume Controller and IBM Storwize® V7000 powered by IBM Spectrum VirtualizeTM V8.2.1. These practices are based on field experience. This book highlights configuration guidelines and preferred practices for the storage area network (SAN) topology, clustered system, back-end storage, storage pools and managed disks, volumes, remote copy services, and hosts. Then it provides performance guidelines for SAN Volume Controller, back-end storage, and applications. It explains how you can optimize disk performance with the IBM System Storage Easy Tier® function. It also provides preferred practices for monitoring, maintaining, and troubleshooting SAN Volume Controller and Storwize V7000. This book is intended for experienced storage, SAN, and SAN Volume Controller administrators and technicians. Understanding his book requires advanced knowledge of the SAN Volume Controller and Storwize V7000 and SAN environments. Important: On 11th February 2020 IBM announced the arrival of SAN Volume Controller SA2 and SV2, and IBM FlashSystem® 7200 to the family. This book was written specifically for prior versions of SVC and Storwize V7000; however, most of the general principles will apply. If you are in any doubt as to their applicability then you should work with your local IBM representative. This book will be updated to comprehensively include SAN Volume Controller SA2 and SV2 and FlashSystem 7200 in due course.

Debugging with GDB

Storage Virtualization

Storing, Managing, and Protecting Digital Information

IBM i 7.2 Technical Overview with Technology Refresh Updates

Business Process Change

Administering Data Centers

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 gustavoaasantana.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"

This IBM® Redbooks® publication helps administrators and technical professionals understand Internet Small Computer System Interface (iSCSI) and how to implement it for use with IBM Storwize® storage systems. iSCSI can be used alone or with other technologies. This publication provides an overview of the iSCSI protocol and helps you understand how it is similar to and different from Fibre Channel (FC) technology. It helps you plan and design your network topology. It explains how to configure your IBM Storwize storage systems and hosts (including IBM AIX®, Linux, VMware, and Microsoft Windows hosts) to interact with it. It also provides an overview of using IBM Storwize storage systems with OpenStack. This book describes configuring iSCSI for IBM Storwize and SAN Volume Controller storage systems at Version 7.6 or later. In addition to configuration, this publication provides information about performance and troubleshooting.

While several publishers (including O'Reilly) supply excellent documentation of router features, the trick is knowing when, why, and how to use these features There are often many different ways to solve any given networking problem using Cisco devices, and some solutions are clearly more effective than others. The pressing question for a network engineer is which of the many potential solutions is the most appropriate for a particular situation. Once you have decided to use a particular feature, how should you implement it? Unfortunately, the documentation describing a particular command or feature frequently does very little to answer either of these questions.Everybody who has worked with Cisco routers for any length of time has had to ask their friends and co-workers for example router configuration files that show how to solve a common problem. A good working configuration example can often save huge amounts of time and frustration when implementing a feature that you've never used before. The Cisco Cookbook gathers hundreds of example router configurations all in one place.As the name suggests, Cisco Cookbook is organized as a series of recipes. Each recipe begins with a problem statement that describes a common situation that you might face. After each problem statement is a brief solution that shows a sample router configuration or script that you can use to resolve this particular problem. A discussion section then describes the solution, how it works, and when you should or should not use it. The chapters are organized by the feature or protocol discussed. If you are looking for information on a particular feature such as NAT, NTP or SNMP, you can turn to that chapter and find a variety of related recipes. Most chapters list basic problems first, and any unusual or complicated situations last.The Cisco Cookbook will quickly become your "go to" resource for researching and solving complex router configuration issues, saving you time and making your network more efficient. It covers: Router Configuration and File Management Router Management User Access and Privilege Levels TACACS+ IP Routing RIP EIGRP OSPF BGP Frame Relay Queueing and Congestion Tunnels and VPNs Dial Backup NTP and Time DLSw Router Interfaces and Media Simple Network Management Protocol Logging Access Lists DHCP NAT Hot Standby Router Protocol IP Multicast

This IBM® Redbooks® publication positions the IBM PowerHA® SystemMirror® V6.1 for AIX® Enterprise Edition as the cluster management solution for high availability. This solution enables near-continuous application service and minimizes the impact of planned and unplanned outages. The primary goal of this high-availability solution is to recover operations at a remote location after a system or data center failure, establish or strengthen a business recovery plan, and provide separate recovery location. The IBM PowerHA SystemMirror Enterprise Edition is targeted at multisite high-availability disaster recovery. The objective of this book is to help new and existing PowerHA customers to understand how to plan to accomplish a successful installation and configuration of the PowerHA SystemMirror for AIX Enterprise Edition. This book emphasizes the IBM Power SystemsTM strategy to deliver more advanced functional capabilities for business

resiliency and to enhance product usability and robustness through deep integration with AIX, affiliated software stack, and storage technologies. PowerHA SystemMirror is designed, developed, integrated, tested, and supported by IBM from top to bottom.
Storing, Managing, and Protecting Digital Information in Classic, Virtualized, and Cloud Environments
Windows 2000 Performance Guide
IBM Tivoli Storage Manager as a Data Protection Solution
Learning VMware vSphere
A Design Guide to the Policy-Driven, Software-Defined Storage Era
VCDX Boot Camp