Businesses of all sizes are faced with the challenge of managing huge volumes of data that are becoming increasingly valuable. But storing this data can be costly, and extracting value from the data is becoming more and more difficult. IT organizations have limited resources and cannot afford to make investment mistakes. The IBM® Storwize® V3500 system provides a smarter solution that is affordable, simple, and efficient, which enables businesses to overcome their storage challenges. IBM Storwize V3500 is the most recent addition to the IBM Storwize family of disk systems. It delivers easy-to-use, entry-level configurations that are specifically designed to meet the modest budgets of small and medium-sized businesses. IBM Storwize V3500 features the following highlights: - Consolidate and share data with low cost iSCSI storage networking. - Deploy storage in minutes and perform storage management tasks quickly and easily through a breakthrough graphical user interface. - Experience peace of mind with proven IBM Storwize family high-availability data protection with snapshot technology and IBM warranty support. - Optimize efficiency by allocating only the amount of disk space needed at the time it is required with high performance, thin-provisioning capabilities.

Achieve the performance, scalability, and ROI your business needs What can you do at the start of a virtualization deployment to make things run more smoothly? If you plan,
deploy, maintain, and optimize vSphere solutions in your company, this unique book provides keen insight and solutions. From hardware selection, network layout, and security considerations to storage and hypervisors, this book explains the design decisions you'll face and how to make the right choices. Written by two virtualization experts and packed with real-world strategies and examples, VMware vSphere Design, Second Edition will help you design smart design decisions. Shows IT administrators how plan, deploy, maintain, and optimize vSphere virtualization solutions Explains the design decisions typically encountered at every step in the process and how to make the right choices Covers server hardware selection, network topology, security, storage, virtual machine design, and more Topics include ESXi hypervisors deployment, vSwitches versus dvSwitches, and FC, FCoE, iSCSI, or NFS storage Find out the "why" behind virtualization design decisions and make better choices, with VMware vSphere Design, Second Edition, which has been fully updated for vSphere 5.x. How do you start? How should you build a plan for cloud migration for your entire portfolio? How will your organization be affected by these changes? This book, based on real-world cloud experiences by enterprise IT teams, seeks to provide the answers to these questions. Here, you’ll see what makes the cloud so compelling to enterprises; with which applications you should start your cloud journey; how your organization will change, and how skill sets will evolve; how to measure progress; how to think about security, compliance, and business buy-in; and how to exploit the ever-growing feature
set that the cloud offers to gain strategic and competitive advantage. IBM® Scale Out Network Attached Storage (SONAS) is a scale out network-attached storage offering that is designed to manage vast repositories of information in enterprise environments that require large capacities, high levels of performance, and high availability. SONAS provides a range of reliable, scalable storage solutions for various storage requirements. These capabilities are achieved by using network access protocols such as Network File System (NFS), Common Internet File System (CIFS), Hypertext Transfer Protocol Secure (HTTPS), File Transfer Protocol (FTP), and Secure Copy Protocol (SCP). Using built-in RAID technologies, all data is well-protected with options to add more protection through mirroring, replication, snapshots, and backup. These storage systems are also characterized by simple management interfaces that make installation, administration, and troubleshooting uncomplicated and straightforward. This IBM Redbooks® publication is the companion to IBM SONAS Best Practices, SG24-8051. It is intended for storage administrators who have ordered their SONAS solution and are ready to install, customize, and use it. It provides backup and availability scenarios information about configuration and troubleshooting. This book applies to IBM SONAS Version 1.5.5. It is useful for earlier releases of IBM SONAS as well.

“Annabel Dodd has cogently untangled the wires and switches and technobabble of the telecommunications revolution and explained how the introduction of the word ‘digital’
into our legislative and regulatory lexicon will affect consumers, companies and society into the next millennium.” – United States Senator Edward J. Markey of Massachusetts; Member, U.S. Senate Subcommittee on Communications, Technology, Innovation, and the Internet “Annabel Dodd has a unique knack for explaining complex technologies in understandable ways. This latest revision of her book covers the rapid changes in the fields of broadband, cellular, and streaming technologies; newly developing 5G networks; and the constant changes happening in both wired and wireless networks. This book is a must-read for anyone who wants to understand the rapidly evolving world of telecommunications in the 21st century!” – David Mash, Retired Senior Vice President for Innovation, Strategy, and Technology, Berklee College of Music

Completely updated for current trends and technologies, The Essential Guide to Telecommunications, Sixth Edition, is the world’s top-selling, accessible guide to the fast-changing global telecommunications industry. Writing in easy-to-understand language, Dodd demystifies today’s most significant technologies, standards, architectures, and trends. She introduces leading providers worldwide, explains where they fit in the marketplace, and reveals their key strategies. New topics covered in this edition include: LTE Advanced and 5G wireless, modern security threats and countermeasures, emerging applications, and breakthrough techniques for building more scalable, manageable networks. Gain a practical understanding of modern cellular, Wi-Fi, Internet, cloud, and carrier technologies Discover how key technical,
business, and regulatory innovations are changing the industry. See how streaming
video, social media, cloud computing, smartphones, and the Internet of Things are
transforming networks. Explore growing concerns about security and privacy, and
review modern strategies for detecting and mitigating network breaches. Learn how
Software Defined Networks (SDN) and Network Function Virtualization (NFV) add
intelligence to networks, enabling automation, flexible configurations, and advanced
networks. Preview cutting-edge, telecom-enabled applications and gear—from mobile
payments to drones. Whether you’re an aspiring network engineer looking for a broad
understanding of the industry, or a salesperson, marketer, investor, or customer, this
indispensable guide provides everything you need to know about telecommunications
right now. This new edition is ideal for both self-study and classroom instruction.
Register your product for convenient access to downloads, updates, and/or corrections
as they become available.

Virtual, hands-on learning labs allow you to apply your technical skills in realistic
environments. So, Sybex has bundled AWS labs from XtremeLabs with our popular
AWS Certified Cloud Practitioner Study Guide to give you the same experience working
in these labs as you prepare for the Certified Cloud Practitioner Exam that you would
face in a real-life application. These labs in addition to the book are a proven way to
prepare for the certification and for work as an AWS Cloud Practitioner. The AWS
Certified Cloud Practitioner Study Guide: Exam CLF-C01 provides a solid introduction
to this industry-leading technology, relied upon by thousands of businesses across the globe, as well as the resources you need to prove your knowledge in the AWS Certification Exam. This guide offers complete and thorough treatment of all topics included in the exam, beginning with a discussion of what the AWS cloud is and its basic global infrastructure and architectural principles. Other chapters dive into the technical, exploring core characteristics of deploying and operating in the AWS Cloud Platform, as well as basic security and compliance aspects and the shared security model. In addition, the text identifies sources of documentation or technical assistance, such as white papers or support tickets. To complete their coverage, the authors discuss the AWS Cloud value proposition and define billing, account management, and pricing models. This includes describing the key services AWS can provide and their common use cases (e.g., compute, analytics, etc.). Distinguish yourself as an expert by obtaining a highly desirable certification in a widely used platform Hone your skills and gain new insights on AWS whether you work in a technical, managerial, sales, purchasing, or financial field Fully prepare for this new exam using expert content and real-world knowledge, key exam essentials, chapter review questions, and other textual resources Benefit from access to the Sybex online interactive learning environment and test bank, including chapter tests, practice exams, key term glossary, and electronic flashcards XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to XtremeLabs AWS
Certified Cloud Practitioner Labs with 8 unique lab modules based on the book. The AWS Certified Cloud Practitioner Study Guide is essential reading for any professional in IT or other fields that work directly with AWS, soon-to-be graduates studying in those areas, or anyone hoping to prove themselves as an AWS Certified Cloud Practitioner. SQL server is the most widely-used database platform in the world, and a large percentage of these databases are not properly secured, exposing sensitive customer and business data to attack. In Securing SQL Server, Third Edition, you will learn about the potential attack vectors that can be used to break into SQL server databases as well as how to protect databases from these attacks. In this book, Denny Cherry - a Microsoft SQL MVP and one of the biggest names in SQL server - will teach you how to properly secure an SQL server database from internal and external threats using best practices as well as specific tricks that the author employs in his role as a consultant for some of the largest SQL server deployments in the world. Fully updated to cover the latest technology in SQL Server 2014, this new edition walks you through how to secure new features of the 2014 release. New topics in the book include vLANs, setting up RRAS, anti-virus installs, key management, moving from plaintext to encrypted values in an existing application, securing Analysis Services Objects, Managed Service Accounts, OS rights needed by the DBA, SQL Agent Security, Table Permissions, Views, Stored Procedures, Functions, Service Broker Objects, and much more. Presents hands-on techniques for protecting your SQL Server database from intrusion.
and attack. Provides the most in-depth coverage of all aspects of SQL Server database security, including a wealth of new material on Microsoft SQL Server 2014. Explains how to set up your database securely, how to determine when someone tries to break in, what the intruder has accessed or damaged, and how to respond and mitigate damage if an intrusion occurs.

The amount of data being generated, processed, and stored has reached unprecedented levels. Even during the recent economic crisis, there has been no slowdown or information recession. Instead, the need to process, move, and store data has only increased. Consequently, IT organizations are looking to do more with what they have while supporting

VMware vCloud Director Cookbook will adopt a Cookbook-based approach. Packed with illustrations and programming examples, this book explains the simple as well as the complex recipes in an easy-to-understand language. VMware vCloud Director Cookbook is aimed at system administrators and technical architects moving from a virtualized environment to cloud environments. Familiarity with cloud computing platforms and some knowledge of virtualization and managing cloud environments is expected.

This IBM® Redbooks® publication provides best practice guidance for planning, installing, configuring, and employing the IBM TS7600 ProtecTIER® family of products. It provides the latest best practices for the practical application of ProtecTIER Software Version 3.4. This latest release introduces the new ProtecTIER Enterprise Edition TS7650G DD6 model high performance server. This book also includes information about the revolutionary and patented
IBM HyperFactor® deduplication engine, along with other data storage efficiency techniques, such as compression and defragmentation. The IBM System Storage® TS7650G ProtecTIER Deduplication Gateway and the IBM System Storage TS7620 ProtecTIER Deduplication Appliance Express are disk-based data storage systems: The Virtual Tape Library (VTL) interface is the foundation of ProtecTIER and emulates traditional automated tape libraries. For your existing ProtecTIER solution, this guide provides best practices and suggestions to boost the performance and the effectiveness of data deduplication with regards to your application platforms for your VTL and FSI (systems prior to version 3.4). When you build a ProtecTIER data deduplication environment, this guide can help IT architects and solution designers plan for the best option and scenario for data deduplication for their environments. This book can help you optimize your deduplication ratio, while reducing the hardware, power and cooling, and management costs. This Redbooks publication provides expertise that was gained from an IBM ProtecTIER System Client Technical Specialist (CTS), Development, and Quality Assurance teams. This planning should be done by the Sales Representative or IBM Business Partner, with the help of an IBM System CTS or IBM Solution Architect.

Offers information on cloud theory and strategies and includes information on how to build and deliver a private cloud using VMware vCloud Director 5.1.

Who says that a leopard can't change its spots? With the advent of SAP HANA, database administration is evolving - and you can evolve along with it. In this title, you can learn how traditional administration concepts are applied in SAP HANA, and find out about the new concepts relevant to an in-memory database.

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 Virtualize™ 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.

The Practical, Foundational Technical Introduction to the World’s #1 Cloud Platform Includes access to several hours of online training video: Mark Wilkins’ expert training video library guides you through setting up core services and prepares you to deploy your own apps and resources. Learning Amazon Web Services (AWS) is the perfect foundational resource for all
administrators, developers, project managers, and other IT professionals who want to plan and deploy AWS services and/or earn AWS certification. Top cloud trainer and evangelist Mark Wilkins teaches best practices that align with Amazon’s Well-Architected Framework, introduces key concepts in the context of a running case study, carefully explains how core AWS services operate and integrate, and offers extensively tested tips for maximizing flexibility, security, and value. Companion online videos guide you step-by-step through setting AWS compute, storage, networking, scale, security, automation, and more. Balance cost, compliance, and latency in your service designs. Choose the right networking options for your virtual private cloud (VPC). Build, host, launch, manage, and budget for EC2 compute services. Plan for scale and resiliency, and make informed decisions about AWS storage. Enforce strict security, and automate to improve operational efficiency. This book with companion training videos is a valuable learning tool for anyone seeking to demonstrate expertise through formal certification. WEB EDITION: All buyers of the book or ebook can register your book for access to a free online Web Edition of this title, which included videos embedded within the text, plus updates as they become available.

This IBM® Redbooks® publication describes the IBM solution for data deduplication, the IBM System Storage® TS7650G IBM ProtecTIER® Deduplication Gateway, and the IBM TS7620 ProtecTIER Deduplication Appliance Express. This solution consists of the IBM System Storage ProtecTIER Enterprise Edition V3.3 software and the IBM System Storage TS7600 family of products. They are designed to address the disk-based data protection needs of enterprise data centers. We describe the components that make up IBM System Storage TS7600 with ProtecTIER and provide extensive planning and sizing guidance that enables you
to determine your requirements and the correct configuration for your environment. We then
guide you through the basic setup steps on the system and on the host. We also describe all
operational tasks that are required during normal day-to-day operation or when upgrading your
TS7600 products. All available models of the ProtecTIER deduplication system can now be
ordered in a configuration to operate in one of the following modes for which we provide setup,
configuration and usage guidelines for your business needs: The Virtual Tape Library (VTL)
interface is the foundation of ProtecTIER and emulates traditional automated tape libraries.
The Symantec NetBackup OpenStorage (OST) API can be integrated with Symantec
NetBackup to provide backup-to-disk without having to emulate traditional tape libraries. The
newly available File System Interface (FSI) supports Common Internet File System (CIFS) and
Network File System (NFS) as a backup target. This publication is intended for system
programmers, storage administrators, hardware and software planners, and other IT personnel
that are involved in planning, implementing, and the use of the IBM deduplication solution. It
also is intended for anyone seeking detailed technical information about the IBM System
Storage TS7600 with ProtecTIER.

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. Maximize Application Performance on Oracle Exadata Written by an enterprise architect specializing in applications on Oracle's engineered systems, Running Applications on Oracle Exadata: Tuning Tips & Techniques reveals proven methods for configuring and tuning Oracle Exadata to achieve peak results from applications. You'll get complete details on application migration, consolidation, and administration. Deliver unparalleled enterprise application performance on Oracle Exadata using the best practices provided in this Oracle Press guide. Understand Oracle Exadata architecture, hardware components, and software features Achieve peak performance from online transaction processing (OLTP) systems Size Oracle Exadata for applications using comparative and predictive methods Migrate and consolidate applications to Oracle Exadata Monitor, manage, and administer all Oracle Exadata components to ensure high availability and performance Develop and implement a backup and recovery strategy Learn best practices for running applications on Oracle Exadata Code examples in the book are available for download at OraclePressBooks.com The six-volume set LNCS 10404-10409 constitutes the refereed proceedings of the 17th International Conference on Computational Science and Its Applications, ICCSA 2017, held in Trieste, Italy, in July 2017. The 313 full papers and 12 short papers included in the 6-volume proceedings set were carefully reviewed and selected from 1052 submissions. Apart from the general tracks, ICCSA 2017 included 43 international workshops in various areas of computational sciences, ranging from computational science technologies to specific areas of computational sciences, such as computer graphics and virtual reality. Furthermore, this year
ICCSA 2017 hosted the XIV International Workshop On Quantum Reactive Scattering. The program also featured 3 keynote speeches and 4 tutorials. This IBM® Redbook captures some of the best practices based on field experience and details the performance gains that can be achieved by implementing the IBM System StorageTM SAN Volume Controller. This book is intended for very experienced storage, SAN, and SVC administrators and technicians. Readers are expected to have an advanced knowledge of the SVC and SAN environment, and we recommend these books as background reading: IBM System Storage SAN Volume Controller, SG24-6423 Introduction to Storage Area Networks, SG24-5470 Using the SVC for Business Continuity, SG24-7371.

Part of a series of specialized guides on System Center - this book provides focused drilldown into building a virtualized network solution. Series editor Mitch Tulloch and a team of System Center experts provide concise technical guidance as they step you through key build, configuration, and implementation tasks.

Whether you're taking the CPHIMS exam, or simply want the most current and comprehensive overview in healthcare information and management systems today - this completely revised and updated third edition has it all. But for those preparing for the CPHIMS exam, this book is an ideal study partner. The content reflects the exam content outline covering healthcare and technology environments; systems analysis, design, selection, implementation, support, maintenance, testing, evaluation, privacy and security; and administration leadership management. Candidates can challenge themselves with the sample multiple choice questions at the end of the book.

This book will show you how to create robust, scalable, highly available and fault-tolerant
solutions by learning different aspects of Solution architecture and next-generation architecture design in the Cloud environment.

Object Storage is the primary storage solution that is used in the cloud and on-premises solutions as a central storage platform for unstructured data. Object Storage is growing more popular for the following reasons: It is designed for exabyte scale. It is easy to manage and yet meets the growing demands of enterprises for a broad set of applications and workloads. It allows users to balance storage cost, location, and compliance control requirements across data sets and essential applications. IBM CloudTM Object Storage (IBM COS) system provides industry-leading flexibility that enables your organization to handle unpredictable but always changing needs of business and evolving workloads. IBM COS system is a software-defined storage solution that is hardware aware. This allows IBM COS to be an enterprise grade storage solution that is highly available and reliable utilizing commodity x86 servers. IBM COS takes full advantage of this hardware awareness by ensuring that the server performs optimally from a monitoring, management, and performance perspective. The target audience for this paper is IBM COS architects, IT specialists, and technologists.

Learn how to provide more effective library service by relying more heavily on collaboration between reference and technical services librarians.

This book provides readers insights into cyber maneuvering or adaptive and intelligent cyber defense. It describes the required models and security supporting functions that enable the analysis of potential threats, detection of attacks, and implementation of countermeasures while expending attacker resources and preserving user experience.
This book not only presents significant education-oriented content, but uses advanced content to reveal a blueprint for helping network security professionals design and implement a secure Software-Defined Infrastructure (SDI) for cloud networking environments. These solutions are a less intrusive alternative to security countermeasures taken at the host level and offer centralized control of the distributed network. The concepts, techniques, and strategies discussed in this book are ideal for students, educators, and security practitioners looking for a clear and concise text to avant-garde cyber security installations or simply to use as a reference. Hand-on labs and lecture slides are located at http://virtualnetworksecurity.thothlab.com/. Features

- Discusses virtual network security concepts
- Considers proactive security using moving target defense
- Reviews attack representation models based on attack graphs and attack trees
- Examines service function chaining in virtual networks with security considerations
- Recognizes machine learning and AI in network security

The data lake is a daring new approach for harnessing the power of big data technology and providing convenient self-service capabilities. But is it right for your company? This book is based on discussions with practitioners and executives from more than a hundred organizations, ranging from data-driven companies such as Google, LinkedIn, and Facebook, to governments and traditional corporate enterprises. You’ll learn what a data lake is, why enterprises need one, and how to build one successfully with the best practices in this book. Alex Gorelik, CTO and founder of
Waterline Data, explains why old systems and processes can no longer support data needs in the enterprise. Then, in a collection of essays about data lake implementation, you’ll examine data lake initiatives, analytic projects, experiences, and best practices from data experts working in various industries. Get a succinct introduction to data warehousing, big data, and data science. Learn various paths enterprises take to build a data lake. Explore how to build a self-service model and best practices for providing analysts access to the data. Use different methods for architecting your data lake. Discover ways to implement a data lake from experts in different industries.

"Detailing what can go wrong in backup and recovery and how this applies to the various backup methods available, this book couples that information with recovery and business continuity tactics played out over the backdrop of various real-world scenarios. Covered is how freezes, corruption, and loss affect documents, equipment, and day-to-day business activities, and the cost of downtime and job re-creation is explained in a way that builds the best budget for availability, backup, and recovery. Protection and restoration of user data and from various locations and times is also covered, as well as how to keep a business running after a power failure, network failure, or other unforeseen event."

This IBM® Redbooks® publication is an IBM and Cisco collaboration that articulates how IBM and Cisco can bring the benefits of their respective companies to the modern data center. It documents the architectures, solutions, and benefits that can be
achieved by implementing a data center based on IBM server, storage, and integrated systems, with the broader Cisco network. We describe how to design a state-of-the art data center and networking infrastructure combining Cisco and IBM solutions. The objective is to provide a reference guide for customers looking to build an infrastructure that is optimized for virtualization, is highly available, is interoperable, and is efficient in terms of power and space consumption. It will explain the technologies used to build the infrastructure, provide use cases, and give guidance on deployments.

The Computer Associate (Technical Support) Passbook(R) prepares you for your test by allowing you to take practice exams in the subjects you need to study. It provides hundreds of questions and answers in the areas that will likely be covered on your upcoming exam, including but not limited to: data processing concepts; program development and documentation; job scheduling; control techniques; problem solving; and more.

Architect enterprise-grade, Microservice-based solutions using Microsoft Azure Service Fabric. About This Book Explore architectural patterns for building modern day Microservice-based systems Learn about Microsoft Service Fabric as a platform to host distributed Microservices Discover multiple options for hosting Microservices on heterogeneous, cross-platform environments Learn to configure Azure Service Fabric clusters for enterprise-grade service deployments Who This Book Is For The book is aimed at IT architects, system administrators, and DevOps engineers who have a basic
knowledge of the Microsoft Azure platform and are working on, or are curious about, the concepts of Microservices and Microservice architecture. What You Will Learn Understand the basics of Microservices and how Microsoft Azure fits into the equation Master Azure Service Fabric architecture and services Explore Azure Service Fabric application programming models Comprehensive study of various architecture patterns for building enterprise-grade Microservices Manage and deploy Microservices on Azure Service Fabric An insight into the future of Microservices with containers and serverless computing In Detail Microsoft Azure is rapidly evolving and is widely used as a platform on which you can build Microservices that can be deployed on-premise and on-cloud heterogeneous environments through Microsoft Azure Service Fabric. This book will help you understand the concepts of Microservice application architecture and build highly maintainable and scalable enterprise-grade applications using the various services in Microsoft Azure Service Fabric. We will begin by understanding the intricacies of the Microservices architecture and its advantages over the monolithic architecture and Service Oriented Architecture (SOA) principles. We will present various scenarios where Microservices should be used and walk you through the architectures of Microservice-based applications. Next, you will take an in-depth look at Microsoft Azure Service Fabric, which is the best-in-class platform for building Microservices. You will explore how to develop and deploy sample applications on Microsoft Azure Service Fabric to gain a thorough understanding of it. Building
Microservice-based application is complicated. Therefore, we will take you through several design patterns that solve the various challenges associated with realizing the Microservices architecture in enterprise applications. Each pattern will be clearly illustrated with examples that you can keep referring to when designing applications. Finally, you will be introduced to advanced topics such as Serverless computing and DevOps using Service Fabric, to help you undertake your next venture with confidence.

Style and approach This book introduces its readers to the concept of Microservices and Microsoft Azure Service Fabric as a distributed platform to host enterprise-grade Microservices. It then addresses common architectural challenges associated with the Microservice architecture, using proven architectural patterns.

Become more culturally competent in an increasingly diverse world Recent years have seen dramatic changes to several institutions worldwide. Our increasingly interconnected, digitized, and globalized world presents immense opportunities and unique challenges. Modern businesses and schools interact with individuals and organizations from a diverse range of cultural and national backgrounds—increasing the likelihood for miscommunication, errors in strategy, and unintended consequences in the process. This has also spilled into our daily lives and the way we consume information today. Understanding how to navigate these and other pitfalls requires adaptability, nuanced cross-cultural communication, and effective conflict resolution. Use Your Difference to Make a Difference provides readers with a skills-based,
actionable plan that transforms differences into agents of inclusiveness, connection, and mutual understanding. This innovative and timely guide illustrates how to leverage differences to move beyond unconscious biases, manage a culturally-diverse workplace, create an environment for more tolerant schooling environments, more trusted media, communicate across borders, find and retain diverse talent, and bridge the gap between working locally and expanding globally. Expert guidance on a comprehensive range of topics—teamwork, leadership styles, information sharing, delegation, supervision, giving and receiving feedback, coaching and motivation, recruiting, managing suppliers and customers, and more—helps you manage the essential aspects of international relationships and cultural awareness. This valuable resource contains the indispensable knowledge required to: Develop self-awareness needed to be a cross-cultural communicator Develop content, messaging techniques, marketing plans, and business strategies that translate across cultural borders Help your employees to better understand and collaborate with clients and colleagues from different backgrounds Help teachers build safe environments for students to be themselves Strengthen cross-cultural competencies in yourself, your team, and your entire organization Understand the cultural, economic, and political factors surrounding our world Use Your Difference to Make a Difference is a must-have resource for any educator, parent, leader, manager, or team member of an organization that interacts with co-workers and customers from diverse cultural backgrounds.
Briggs

Enterprise Cloud ePUB _1Microsoft Press

Design and implement successful private clouds with OpenStack

About This Book

Explore the various design choices available for cloud architects within an OpenStack deployment

Craft an OpenStack architecture and deployment pipeline to meet the unique needs of your organization

Create a product roadmap for Infrastructure as a Service in your organization using this hands-on guide

Who This Book Is For

This book is written especially for those who will design OpenStack clouds and lead their implementation. These people are typically cloud architects, but may also be in product management, systems engineering, or enterprise architecture.

What You Will Learn

Familiarize yourself with the components of OpenStack

Build an increasingly complex OpenStack lab deployment

Write compelling documentation for the architecture teams within your organization

Apply Agile configuration management techniques to deploy OpenStack

Integrate OpenStack with your organization's identity management, provisioning, and billing systems

Configure a robust virtual environment for users to interact with

Use enterprise security guidelines for your OpenStack deployment

Create a product roadmap that delivers functionality quickly to the users of your platform

In Detail

Over the last five years, hundreds of organizations have successfully implemented Infrastructure as a Service (IaaS) platforms based on OpenStack. The huge amount of investment from these organizations, industry giants such as IBM and HP, as well as open source leaders such as Red Hat have led analysts to label OpenStack as the most important open source technology since the Linux operating system. Because of its ambitious scope, OpenStack is a complex and fast-evolving open source project that requires a diverse skill-set to design and implement it. This guide leads you through each of the major decision points that
you'll face while architecting an OpenStack private cloud for your organization. At each point, we offer you advice based on the experience we've gained from designing and leading successful OpenStack projects in a wide range of industries. Each chapter also includes lab material that gives you a chance to install and configure the technologies used to build production-quality OpenStack clouds. Most importantly, we focus on ensuring that your OpenStack project meets the needs of your organization, which will guarantee a successful rollout. Style and approach This is practical, hands-on guide to implementing OpenStack clouds, where each topic is illustrated with real-world examples and then the technical points are proven in the lab.

"Ultimately, this is a remarkable book, a practical testimonial, and a comprehensive bibliography rolled into one. It is a single, bright sword cut across the various murky green IT topics. And if my mistakes and lessons learned through the green IT journey are any indication, this book will be used every day by folks interested in greening IT." — Simon Y. Liu, Ph.D. & Ed.D., Editor-in-Chief, IT Professional Magazine, IEEE Computer Society, Director, U.S. National Agricultural Library

This book presents a holistic perspective on Green IT by discussing its various facets and showing how to strategically embrace it. Harnessing Green IT: Principles and Practices examines various ways of making computing and information systems greener—environmentally sustainable—as well as several means of using Information Technology (IT) as a tool and an enabler to improve the environmental sustainability. The book focuses on both greening of IT and greening by IT—complimentary approaches to attaining environmental sustainability. In a single volume, it comprehensively covers several key aspects of Green IT—green technologies, design, standards, maturity models, strategies, and adoption—,
and presents a clear approach to greening IT encompassing green use, green disposal, green design, and green manufacturing. It also illustrates how to strategically apply green IT in practice in several areas. Key Features: Presents a comprehensive coverage of key topics of importance and practical relevance - green technologies, design, standards, maturity models, strategies and adoption. Highlights several useful approaches to embracing green IT in several areas. Features chapters written by accomplished experts from industry and academia who have first-hand knowledge and expertise in specific areas of green IT. Presents a set of review and discussion questions for each chapter that will help the readers to examine and explore the green IT domain further. Includes a companion website providing resources for further information and presentation slides. This book will be an invaluable resource for IT Professionals, academics, students, researchers, project leaders/managers, IT business executives, CIOs, CTOs and anyone interested in Green IT and harnessing it to enhance our environment.

Powerful Earthquake Triggers Tsunami in Pacific. Hurricane Isaac Makes Landfall in the Gulf Coast. Wildfires Burn Hundreds of Houses and Businesses in Colorado. Tornado Touches Down in Missouri. These headlines not only have caught the attention of people around the world, they have had a significant effect on IT professionals as well. The new 2nd Edition of Business Continuity and Disaster Recovery for IT Professionals gives you the most up-to-date planning and risk management techniques for business continuity and disaster recovery (BCDR). With distributed networks, increasing demands for confidentiality, integrity and availability of data, and the widespread risks to the security of personal, confidential and sensitive data, no organization can afford to ignore the need for disaster planning. Author
Susan Snedaker shares her expertise with you, including the most current options for disaster recovery and communication, BCDR for mobile devices, and the latest infrastructure considerations including cloud, virtualization, clustering, and more. Snedaker also provides you with new case studies in several business areas, along with a review of high availability and information security in healthcare IT. Don’t be caught off guard—Business Continuity and Disaster Recovery for IT Professionals, 2nd Edition, is required reading for anyone in the IT field charged with keeping information secure and systems up and running. Complete coverage of the 3 categories of disaster: natural hazards, human-caused hazards, and accidental / technical hazards Extensive disaster planning and readiness checklists for IT infrastructure, enterprise applications, servers and desktops Clear guidance on developing alternate work and computing sites and emergency facilities Actionable advice on emergency readiness and response Up-to-date information on the legal implications of data loss following a security breach or disaster

Use this comprehensive guide for the SQL Server DBA, covering all that practicing database administrators need to know to get their daily work done. Updated for SQL Server 2019, this edition includes coverage of new features such as Memory-optimized TempDB Metadata, and Always Encrypted with Secure Enclaves. Other new content includes coverage of Query Store, resumable index operations, installation on Linux, and containerized SQL. Pro SQL Server 2019 Administration takes DBAs on a journey that begins with planning their SQL Server deployment and runs through installing and configuring the instance, administering and optimizing database objects, and ensuring that data is secure and highly available. Finally, readers will learn how to perform advanced maintenance and tuning techniques. This book
teaches you to make the most of new SQL Server 2019 functionality, including Data Discovery and Classification. The book promotes best-practice installation, shows how to configure for scalability and high workloads, and demonstrates the gamut of database-level maintenance tasks such as index maintenance, database consistency checks, and table optimizations. What You Will Learn Install and configure SQL Server on Windows through the GUI and with PowerShell Install and configure SQL Server on Linux and in Containers Optimize tables through in-memory OLTP, table partitioning, and the creation of indexes Secure and encrypt data to protect against embarrassing data breaches Ensure 24x7x365 access through high-availability and disaster recovery features Back up your data to ensure against loss, and recover data when needed Perform routine maintenance tasks such as database consistency checks Troubleshoot and solve performance problems in SQL queries and in the database engine Who This Book Is For SQL Server DBAs who manage on-premise installations of SQL Server. This book is also useful for DBAs who wish to learn advanced features such as Query Store, Extended Events, Distributed Replay, and Policy-Based Management, or those who need to install SQL Server in a variety of environments. Give your organization the data protection it deserves without the uncertainty and cost overruns experienced by your predecessors or other companies. System and network administrators have their work cut out for them to protect physical and virtual machines in the data center and the cloud; mobile devices including laptops and tablets; SaaS services like Microsoft 365, Google Workspace, and Salesforce; and persistent data created by Kubernetes and container workloads. To help you navigate the breadth and depth of this challenge, this book presents several solutions so you can determine which is right for your company. You'll
learn the unique requirements that each workload presents, then explore various categories of commercial backup hardware, software, and services available to protect these data sources, including the advantages and disadvantages of each approach. Learn the workload types that your organization should be backing up. Explore the hardware, software, and services you can use to back up your systems. Understand what's wrong with your current data protection system. Pair your backed-up workloads to the appropriate backup system. Learn the adjustments that will make your backups better, without wasting money.

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