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Essential Virtual SAN (VSAN)-Cormac Hogan 2016-06-01 Plan, implement, and manage VMware's radically simple, enterprise-class software-defined storage platform VMware's Virtual SAN has rapidly proven itself in environments ranging from hospitals to oil rigs to e-commerce platforms. Along the way, it has matured to offer unsurpassed features for data integrity, availability, and space efficiency. Virtual SAN 6.x makes all-flash storage practical for even more use cases, while radically simplifying IT operations and supporting the transition to hyper-converged infrastructures (HCI). Now, the authors of Essential Virtual SAN (VSAN) have thoroughly updated their definitive guide to this transformative technology. Writing for vSphere administrators, architects, and consultants, Cormac Hogan and Duncan Epping explain what Virtual SAN is, how it has evolved, what it now offers, and how to gain maximum value from it. Hogan and Epping draw on unsurpassed experience shaping Virtual SAN and helping VMware customers deploy it. They offer expert insight into preparation, installation, configuration, policies, provisioning, clusters, and more. You'll also find practical guidance for using its new Health and Performance Services to gain end-to-end visibility into infrastructure and resource consumption. Both an up-to-the-minute reference and hands-on tutorial, Essential Virtual SAN, Second Edition uses realistic examples to demonstrate the immense power of Virtual SAN 6.x. You'll learn all you need to

successfully plan and deploy the newest versions, and operate them smoothly and efficiently. **COVERAGE INCLUDES:** Understanding the goals and concepts of Software-Defined Storage and Virtual SAN Meeting updated requirements for safe Virtual SAN 6.x implementation Architecting, installing, and configuring Virtual SAN for your unique environment Simplifying deployment with VM storage policies and provisioning Controlling availability, performance, and reliability Efficiently managing and maintaining Virtual SAN Providing resiliency and scale-out storage functionality Designing and sizing clusters (with examples) Using stretched clusters to address rigorous downtime requirements Applying valuable new features such as deduplication, compression, checksums, and encryption Using Health and Performance Services to troubleshoot hardware, configurations, and performance

Essential Virtual SAN (VSAN)-Cormac Hogan 2014-07-09 Understand and implement VMware Virtual SAN: the heart of tomorrow's Software-Defined Datacenter (SDDC) VMware's breakthrough Software-Defined Datacenter (SDDC) initiative can help you virtualize your entire datacenter: compute, storage, networks, and associated services. Central to SDDC is VMware Virtual SAN (VSAN): a fully distributed storage architecture seamlessly integrated into the hypervisor and capable of scaling to meet any enterprise storage requirement. Now, the leaders of VMware's wildly popular Virtual SAN previews have written the first authoritative guide to this

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pivotal technology. You'll learn what Virtual SAN is, exactly what it offers, how to implement it, and how to maximize its value. Writing for administrators, consultants, and architects, Cormac Hogan and Duncan Epping show how Virtual SAN implements both object-based storage and a policy platform that simplifies VM storage placement. You'll learn how Virtual SAN and vSphere work together to dramatically improve resiliency, scale-out storage functionality, and control over QoS. Both an up-to-the-minute reference and hands-on tutorial, Essential Virtual SAN uses realistic examples to demonstrate Virtual SAN's most powerful capabilities. You'll learn how to plan, architect, and deploy Virtual SAN successfully, avoid gotchas, and troubleshoot problems once you're up and running. Coverage includes Understanding the key goals and concepts of Software-Defined Storage and Virtual SAN technology Meeting physical and virtual requirements for safe Virtual SAN implementation Installing and configuring Virtual SAN for your unique environment Using Storage Policy Based Management to control availability, performance, and reliability Simplifying deployment with VM Storage Policies Discovering key Virtual SAN architectural details: caching I/O, VASA, witnesses, pass-through RAID, and more Ensuring efficient day-to-day Virtual SAN management and maintenance Interoperating with other VMware features and products Designing and sizing Virtual SAN clusters Troubleshooting, monitoring, and performance optimization

Storage Implementation in vSphere 5.0-

Mostafa Khalil 2012-08-23 THE ONLY AUTHORITATIVE, COMPREHENSIVE GUIDE TO VSPHERE STORAGE IMPLEMENTATION AND MANAGEMENT Effective VMware virtualization storage planning and management has become crucial-but it can be extremely complex. Now, the leading VMware expert on storage completely demystifies the "black box" of vSphere storage and provides illustrated, step-by-step procedures for performing every key task associated with it. You'll gain the deep understanding you need to make better storage decisions, solve problems, and keep problems from occurring in the first place. Mostafa Khalil presents techniques based on years of personal experience helping customers troubleshoot storage in their vSphere production environments. With more experience than

anyone else in the field, he combines expert guidelines, insights for better architectural design, best practices for both planning and management, common configuration details, and deep dives into both vSphere and third-party storage. Storage Implementation in vSphere® 5.0 fully explains each storage connectivity choice and protocol supported by VMware, introduces Pluggable Storage Architecture (PSA), and shows how to build on PSA with multipathing, failover, and ALUA. It thoroughly introduces Storage Virtualization Devices (SVDs) and VMDirectPath I/O, and shows how to drive powerful improvements in performance, flexibility, and manageability with VMFS 5 and VAAI. COVERAGE INCLUDES Understanding how FC, FCoE, and iSCSI interact with VMware vSphere 5 Implementing specific VMware capabilities on storage hardware from each leading vendor Avoiding, recognizing, and fixing misconfigurations and other problems Using third-party MPIO plug-ins certified with vSphere 5 and PSA Maximizing availability through multipathing and failover Implementing fixed and round-robin multipathing on arrays with ALUA support Monitoring and optimizing virtual storage performance Managing vSphere-compatible file systems: VMFS and NFS Taking full advantage of VMDirectPath I/O Implementing heterogeneous storage configurations Presenting abstracted storage through virtual disks and Raw Device Mappings (RDMs) Using VMFS 5 to simplify management and improve scalability in large-scale environments Sharing storage and migrating more easily across multiple VMware vSphere instances Optimizing storage performance with VAAI-compliant devices Mostafa Khalil, Senior Staff Engineer with VMware Global Support Services, specializes in storage integration for virtual environments. He has worked for VMware for 13 years and supported all VMware virtualization products since Workstation for Linux 1.0 beta. Khalil has worked on most enterprise storage vendors' solutions and received engineering-level training for many of them. He has presented at every VMworld, and at VMware Partner Exchange, VMware User Group, and USENIX. ISBN-13: 978-0-321-79993-7 ISBN-10: 0-321-79993-3

Vmware Vsan 6.7 U1 Deep Dive-

Duncan Epping 2018-12-10 VMware's vSAN has rapidly proven itself in environments ranging from hospitals to oil rigs to e-commerce platforms and is one of the top three players in the

hyperconverged space. Along the way, it has matured to offer unsurpassed features for data integrity, availability, and space efficiency. vSAN 6.7 U1 has radically simplified IT operations and supports the transition to hyperconverged infrastructures (HCI). The authors of the vSAN Deep Dive have thoroughly updated their definitive guide to this transformative technology. Writing for vSphere administrators, architects, and consultants, Cormac Hogan, and Duncan Epping explain what vSAN is, how it has evolved, what it now offers, and how to gain maximum value from it. The book offers expert insight into preparation, installation, configuration, policies, provisioning, clusters, architecture, and more. You'll also find practical guidance for using all data services, stretched clusters, and two node configurations. This book is part of the Deep Dive series. Combine this book with the vSphere 6.5 Host Deep Dive, and the vSphere 6.7 Clustering Deep Dive, and you have an in-depth and comprehensive set of books that deliver the information you need to design and administer both vSphere and vSAN in the enterprise. Often referred to in the virtual community as the vSphere Resource kit, the Host Resource Deep Dive zooms in on hardware resources such as CPU and Memory and covers how the vSphere resource scheduler manages these. The vSAN Deep Dive discusses how to leverage local storage devices to create a shared storage platform and the Clustering Deep Dive builds on top of that and zooms in how a group of ESXi hosts work together and provide compute clustering services. Buy all three and become your organizations' private cloud superhero!

VMware Virtual SAN Cookbook-Jeffrey Taylor
2015-08-31 The perfect guide to successful VMware Virtual SAN implementation and operations, with recipes to guide you through the process About This Book Design a Virtual SAN infrastructure from selecting hardware to full capacity. Deploy and manage a software-defined storage solution with VMware Virtual SAN Prepare for architectural and scale changes as your enterprise grows and develops Who This Book Is For If you are an administrator of a VMware vSphere infrastructure and want to simplify storage delivery by integrating storage into vSphere, this book is for you. No extensive storage background is needed as VMware Virtual SAN integrates into the existing vSphere solutions with which you are already familiar. What You Will Learn Prepare your infrastructure

for VMware Virtual SAN Plan and build infrastructure solutions to suit your needs Implement VMware Virtual SAN Exploit the power of policy-based management Increase or decrease the scale of your Virtual SAN as needs change Monitor your Virtual SAN infrastructure effectively Respond to and troubleshoot problems In Detail VMware Virtual SAN is a radically simple, hypervisor-converged storage, designed and optimized for vSphere virtual infrastructure. VMware introduced the software to help customers store more and more virtual machines. As data centers continue to evolve and grow, managing infrastructure becomes more challenging. Traditional storage solutions like monolithic storage arrays and complex management are often ill-suited to the needs of the modern data center. Software-defined storage solutions, like VMware Virtual SAN, integrate the storage side of the infrastructure with the server side, and can simplify management and improve flexibility. This book is a detailed guide which provides you with the knowledge you need to successfully implement and manage VMware VSAN and deployed infrastructures. You will start with an introduction to VSAN and object storage, before moving on to hardware selection, critical to a successful VSAN deployment. Next, you will discover how to prepare your existing infrastructure to support your VSAN deployment and explore Storage policy-Based Management, including policy changes, maintenance, validation, and troubleshooting VSAN. Finally, the book provides recipes to expedite the resolution process and gather all the information required to pursue a rapid resolution. Style and approach A practical guide to implementing VMware Virtual SAN filled with recipes, tips, and detailed explanations.

DevOps for VMware Administrators-Trevor A. Roberts Jr. 2015-03-19 DevOps for VMware® Administrators is the first book focused on using DevOps tools and practices with VMware technologies. The authors introduce high-value tools from third parties and VMware itself, and guide you through using them to improve the performance of all your virtualized systems and applications. You'll walk through automating and optimizing configuration management, provisioning, log management, continuous integration, and more. The authors also offer step-by-step coverage of deploying and managing applications at scale with Docker containers and

Google Kubernetes. They conclude with an up-to-the-minute discussion of VMware's newest DevOps initiatives, including VMware vRealize Automation and VMware vRealize Code Stream. Coverage includes

- Understanding the challenges that DevOps tools and practices can help VMware administrators to solve
- Using Vagrant to quickly deploy Dev and Test environments that match production system specifications
- Writing Chef "recipes" that streamline server configuration and maintenance
- Simplifying Unix/Linux configuration management and orchestration with Ansible
- Implementing Docker containers for faster and easier application management
- Automating provisioning across the full lifecycle with Razor
- Integrating Microsoft PowerShell Desired State Configuration (DSC) and VMware PowerCLI to automate key Windows Server and vSphere VM admin tasks
- Using Puppet to automate infrastructure provisioning, configuration, orchestration, and reporting
- Supercharging log management with ELK (Elasticsearch, Logstash, Kibana)
- Supporting DevOps source code management with Git and continuous integration practices with Jenkins
- Achieving continuous integration, delivery, and deployment with VMware's vRealize Code Stream

VMware vSphere 6.5 Host Resources Deep Dive-Frank Denneman 2017-06-20 From the author of the vSphere Clustering Deep Dive series - The VMware vSphere 6.5 Host Resources Deep Dive is a guide to building consistent high-performing ESXi hosts. A book that people can't put down. Written for administrators, architects, consultants, aspiring VCDX-es and people eager to learn more about the elements that control the behavior of CPU, memory, storage and network resources. This book shows that we can fundamentally and materially improve the systems we're building. We can make the currently running ones consistently faster by deeply understanding and optimizing our systems. The reality is that specifics of the infrastructure matter. Details matter. Especially for distributed platforms which abstract resource layers, such as NSX and vSAN. Knowing your systems inside and out is the only way to be sure you've properly handled those details. It's about having a passion for these details. It's about loving the systems we build. It's about understanding them end-to-end. This book explains the concepts and mechanisms behind the physical resource components and the

VMkernel resource schedulers, which enables you to: Optimize your workload for current and future Non-Uniform Memory Access (NUMA) systems. Discover how vSphere Balanced Power Management takes advantage of the CPU Turbo Boost functionality, and why High Performance does not. How the 3-DIMMs per Channel configuration results in a 10-20% performance drop. How TLB works and why it is bad to disable large pages in virtualized environments. Why 3D XPoint is perfect for the vSAN caching tier. What queues are and where they live inside the end-to-end storage data paths. Tune VMkernel components to optimize performance for VXLAN network traffic and NFV environments. Why Intel's Data Plane Development Kit significantly boosts packet processing performance.

VMware Horizon View High Availability-Andrew Alloway 2015-11-20 Design, develop and deploy a highly available vSphere environment for VMware Horizon View About This Book Enhance your capability of meeting various Service Level Agreements in VMware Horizon View Get acquainted through all the necessary considerations for building a View environment Cover VMware High Availability hurdle by hurdle along with the checklists for verification of the environment being ready for production Who This Book Is For If you manage, plan or deploy VMware Horizon View or are looking for tips for best practices and configuration details this book is for you. This book is intended for administrators who design and deploy VMware Horizon View or administrators who are looking for ways to improve their existing View environment. What You Will Learn Install and configure a VMware Horizon View Connection Server and redundant pair Discover the networking requirements for View and learn how to build redundancy into your network Analyze each of the View user pool types and how each one can be made highly available and survivable. Get to know about storage protocols such as NFS, iSCSI and Fibre Channel Deploy Virtual SAN, and find out how to effectively couple Virtual SAN with View Learn about View monitoring tools to allow fast responses to various crises Plan, analyze and upgrade VMware Horizon View Analyze network services required for VMware Horizon View and build them in a redundant manner In Detail The increasing movement to virtualize workloads and workstations has put VMware Horizon View into a central mission critical role in many

environments. Administrators may be overwhelmed with planning for outages and dealing with failure scenarios. It's easy to miss small details that will result in outages down the road. Following VMware Horizon View best practices and planning ahead with network infrastructure will allow you to avoid these common pit falls. This book will walk you through the setup and configuration of View in a highly available configuration. It will provide you with the skills to analyze and deploy configurations that can stand up to rigorous failure standards. The book starts with deploying and basic configuration of VMware Horizon View in a redundant setup, then moves on to cover high availability for networking, fibre channel, NFS, and iSCSI. We finish this book with monitoring and upgrade planning. At the end we also learn about maintaining the uptime and minimizing the downtime that can be caused due to various factors. Each topic comes with a list of best practices and failure scenarios to test. Administrators will learn the intricacies of protecting a View environment. Style and approach This book provides configuration and installation steps for administration and installation of a Horizon View server. It includes high-level overviews of any protocols, services used by Horizon View, and best practices and high availability checklists for each chapter.

Networking for VMware Administrators-

Christopher Wahl 2014 "Now that virtualization has blurred the lines between networking and servers, many VMware specialists need a stronger understanding of networks than they may have gained in earlier IT roles. Networking for VMware administrators fills this crucial knowledge gap. Writing for VMware professionals, Christopher Wahl and Steve Pantol illuminate the core concepts of modern networking, and show how to apply them in designing, configuring, and troubleshooting any virtualized network environment"--P. [4] of cover.

Information Storage and Management-EMC

Education Services 2012-04-30 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.

Mastering VMware vSphere 6-Nick Marshall

2015-03-20 Master your virtual environment with the ultimate vSphere guide Mastering VMware vSphere 6 is the fully updated edition of the bestselling guide to VMware's virtualization solution. With comprehensive coverage of this industry-leading toolset, this book acts as an informative guide and valuable reference. Step-by-step instruction walks you through installation, configuration, operation, security processes, and much more as you conquer the management and automation of your virtual environment. Written by certified VMware vExperts, this indispensable guide provides hands-on instruction and detailed conceptual explanations, anchored by practical applications and real-world examples. This book is the ultimate guide to vSphere, helping administrators master their virtual environment. Learn to: Install, configure, and manage the vCenter Server components Leverage the Support Tools to provide maintenance and updates Create and configure virtual networks, storage devices, and virtual machines Implement the latest features to ensure compatibility and flexibility Manage resource allocation and utilization to meet application needs Monitor infrastructure performance and availability Automate and orchestrate routine administrative tasks Mastering VMware vSphere 6 is what you need to stay up-to-date on VMware's industry-leading software for the virtualized datacenter.

Virtualizing Oracle Databases on VSphere-

Kannan Mani 2014 Annotation Thousands of organizations are virtualizing large-scale Oracle database systems. But, until now, reliable best practices have been hard to find, and database and virtualization professionals have often brought differing and incompatible perspectives to the challenge. Now, there's a comprehensive best practice guide reflecting deep understanding of both Oracle and vSphere, and supported by extensive in-the-field experience with the full spectrum of applications and environments.

Cloud and Virtual Data Storage Networking-

Greg Schulz 2011-08-26 The amount of data being generated, processed, and stored has reached unprecedented levels. Even during the recent economic crisis, there has been no slow down 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 gr

Cloud Computing-

Venkata Josyula 2011-05-15 The complete guide to provisioning and managing cloud-based Infrastructure as a Service (IaaS) data center solutions Cloud computing will revolutionize the way IT resources are deployed, configured, and managed for years to come. Service providers and customers each stand to realize tremendous value from this paradigm shift-if they can take advantage of it. Cloud Computing brings together the realistic, start-to-finish guidance they need to plan, implement, and manage cloud solution architectures for tomorrow's virtualized data centers. It introduces cloud 'newcomers' to essential concepts, and offers experienced operations professionals detailed guidance on delivering Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). This book's replicable solutions and fully-tested best practices will help enterprises, services providers, consultants, and Cisco partners meet the challenge of provisioning end-to-end cloud infrastructures. Drawing on extensive experience working with leading cloud vendors and integrators, the authors present detailed operations workflow examples, proven techniques for operating cloud-based network, compute, and storage infrastructure; a comprehensive management

reference architecture; and a complete case study demonstrating rapid, lower-cost solutions design. Cloud Computing will be an indispensable resource for all network/IT professionals and managers involved with planning, implementing, or managing the next generation of cloud computing services. • Review the key concepts needed to successfully deploy and cloud-based services • Transition common enterprise design patterns and use cases to the cloud • Master architectural principles and infrastructure design for 'real-time' managed IT services • Understand the Cisco approach to cloud-related technologies, systems, and services • Develop a cloud management architecture using ITIL, TMF, and ITU-TMN standards • Implement best practices for cloud service provisioning, activation, and management • Automate cloud infrastructure to simplify service delivery, monitoring and assurance • Choose and implement the right billing/chargeback approaches for your business • Design and build IaaS services, from start to finish • Manage the unique capacity challenges associated with sporadic, real-time demand • Provide a consistent and optimal cloud user experience This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

IBM SAN Survival Guide-

Jon Tate 2015-08-05 As we all know, large ocean going ships never collide with icebergs. However, occasionally life deals out some unexpected pleasures for us to cope with. Surviving any disaster in life is usually a lot easier if you have prepared adequately by taking into account the likely problems, solutions, and their implementation. In this IBM Redbooks publication, we limit ourselves to those situations in which it is likely that a SAN will be deployed. We present the IBM SAN portfolio of products, going a little under the surface to show the fault tolerant features that they utilize, and then describe solutions with all these features taken into account. Each of these solutions was built on practical experience, in some cases with cost in mind, in some cases with no cost in mind. Any well-thought-out SAN design will have taken every single one of these concerns into account, and either formulated a solution for it, or ignored it, but nonetheless understanding the potential exposure. With these points in mind, in this book

we have two objectives: to position the IBM SAN products that are currently in our portfolio; and to show how those products can be configured together to build a SAN that not only allows you to survive most forms of disaster, but also provides performance benefits. So, make sure that you know what to do if you hit an iceberg!

Virtualization Essentials-Matthew Portnoy
2016-08-29 Learn virtualization skills by building your own virtual machine Virtualization Essentials, Second Edition provides new and aspiring IT professionals with immersive training in working with virtualization environments. Clear, straightforward discussion simplifies complex concepts, and the hands-on tutorial approach helps you quickly get up to speed on the fundamentals. You'll begin by learning what virtualization is and how it works within the computing environment, then you'll dive right into building your own virtual machine. You'll learn how to set up the CPU, memory, storage, networking, and more as you master the skills that put you in-demand on the job market. Each chapter focuses on a specific goal, and concludes with review questions that test your understanding as well as suggested exercises that help you reinforce what you've learned. As more and more companies are leveraging virtualization, it's imperative that IT professionals have the skills and knowledge to interface with virtualization-centric infrastructures. This book takes a learning-by-doing approach to give you hands-on training and a core understanding of virtualization. Understand how virtualization works Create a virtual machine by scratch and migration Configure and manage basic components and supporting devices Develop the necessary skill set to work in today's virtual world Virtualization was initially used to build test labs, but its use has expanded to become best practice for a tremendous variety of IT solutions including high availability, business continuity, dynamic IT, and more. Cloud computing and DevOps rely on virtualization technologies, and the exponential spread of these and similar applications make virtualization proficiency a major value-add for any IT professional. Virtualization Essentials, Second Edition provides accessible, user-friendly, informative virtualization training for the forward-looking pro.

Mastering VMware vSphere 6.5-Andrea Mauro

2017-12-15 Deliver great business value by adopting the virtualization platform VMware vSphere 6.5, from the design to the deployment About This Book This new edition is based on vSphere 6.5 and has described new features in different areas, including management, security, scalability, availability and so on. Design, deploy and manage VMware datacenters Implement monitoring and security of VMware workloads with ease. Who This Book Is For If you are an administrator, infrastructure engineer, IT architect, or an IT consultant and analyst who has basic knowledge of VMware vSphere and now wants to master it, then this book is for you. What You Will Learn Get a deep understanding of vSphere 6.5 functionalities Design and plan a virtualization environment based on vSphere 6.5 Manage and administer a vSphere 6.5 environment and resources Get tips for the VCP6-DCV and VCIX6-DCV exams (along with use of the vSphere 6 documentation) Implement different migration techniques to move your workload across different environments. Save your configuration, data and workload from your virtual infrastructure. In Detail VMware vSphere 6.5 provides a powerful, flexible and secure foundation for next-generation applications which helps you create an effective digital transformation. This book will be based on VMware vSphere 6.5 which empowers you to virtualize any complex application with ease. You'll begin by getting an overview of all the products, solutions and features of the vSphere 6.5 suite, comparing the evolutions with the previous releases. Next ,you'll design and plan a virtualization infrastructure to drive planning and performance analysis. Following this , you will be proceeding with workflow and installation of components. New network trends are also covered which will help you in optimally designing the vSphere environment. You will also learn the practices and procedures involved in configuring and managing virtual machines in a vSphere infrastructure. With vSphere 6.5, you'll make use of significantly more powerful capabilities for patching, upgrading, and managing the configuration of the virtual environment. Next we'll focus on specific availability and resiliency solutions in vSphere. Towards the end of the book you will get information on how to save your configuration, data and workload from your virtual infrastructure. By the end of the book you'll learn about VMware vSphere 6.5 right from design to deployment and management. Style and Approach This book acts as a reference guide

providing real-world scenarios and a possible baseline for each virtualization project based on VMware vSphere.

SAN Multiprotocol Routing: An Introduction and Implementation

Jon Tate 2006-11-09 This IBM Redbooks publication supersedes both: IBM TotalStorage: Introduction to SAN Routing, SG24-7119-00 Implementing the IBM TotalStorage Multiprotocol Routers, SG24-7246-00 The rapid spread and adoption of production storage area networks (SANs) has fuelled the need for multiprotocol routers. The routers provide improved scalability, security, and manageability by enabling devices in separate SAN fabrics to communicate without merging fabrics into a single, large SAN fabric. This capability enables clients to initially deploy separate SAN solutions at the departmental and data center levels. Then, clients can consolidate these separate solutions into large enterprise SAN solutions as their experience and requirements grow and change. Alternatively, multiprotocol routers can help to connect existing enterprise SANs for a variety of reasons. For instance, the introduction of Small Computer System Interface over IP (iSCSI) provides for the connection of low-end, low-cost hosts to enterprise SANs. The use of an Internet Protocol (IP) in the Fibre Channel (FC) environment provides for resource consolidation and disaster recovery planning over long distances. And the use of FC-FC routing services provides connectivity between two or more fabrics without having to merge them into a single SAN. This book targets storage network administrators, system designers, architects, and IT professionals who sell, design, or administer SANs. It introduces you to the products, concepts, and technology in the IBM System Storage SAN Routing portfolio. This book shows the features of each product and examples of how you can deploy and use them.

IBM FlashSystem 9100 Architecture, Performance, and Implementation

Jon Tate 2020-10-01 IBM® FlashSystem 9100 combines the performance of flash and Non-Volatile Memory Express (NVMe) with the reliability and innovation of IBM FlashCore® technology and the rich features of IBM Spectrum™ Virtualize — all in a powerful 2U storage system. Providing intensive data driven multi-cloud storage capacity, FlashSystem 9100 is deeply integrated

with the software-defined capabilities of IBM Spectrum Storage™, which allows you to easily add the multi-cloud solutions that best support your business. In this IBM Redbooks® publication, we discuss the product's features and planning steps, architecture, installation, configuration, and hints and tips.

Introduction to Storage Area Networks

Ibm Redbooks 2015

Virtualizing SQL Server with VMware

Michael Corey 2014-07 Offers techniques, tips, and insights into squeezing maximum performance out of a virtualized database.

IBM SAN Solution Design Best Practices for VMware vSphere ESXi

Jon Tate 2013-09-16 In this IBM® Redbooks® publication, we describe recommendations based on an IBM b-type storage area network (SAN) environment that is utilizing VMware vSphere ESXi. We describe the hardware and software and the unique features that they bring to the marketplace. We then highlight those features and how they apply to the SAN environment, and the best practices for ensuring that you get the best out of your SAN. For background reading, we recommend the following Redbooks publications: - Introduction to Storage Area Networks and System Networking, SG24-5470 - IBM System Storage SAN Volume Controller Best Practices and Performance Guidelines, SG24-7521 - IBM System Storage SAN Volume Controller and Storwize V7000 Replication Family Services, SG24-7574 - Implementing the IBM System Storage SAN Volume Controller V6.3, SG24-7933 - IBM SAN Volume Controller Stretched Cluster with PowerVM and PowerHA, SG24-8142 - Implementing the IBM SAN Volume Controller and FlashSystem 820, SG24-8172 - IBM System Storage DS8000 Copy Services for Open Systems, SG24-6788 - IBM System Storage DS8000: Host Attachment and Interoperability, SG24-8887 This book is aimed at pre- and post-sales support, system administrators, and storage administrators.

Hyperconverged Infrastructure Data Centers

Sam Halabi 2019-01-18 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.

VCP5-DCV Official Certification Guide

(Covering the VCP550 Exam)-Bill Ferguson

2014-08-07 The Publisher regrets that the CD/DVD content for this title cannot be made available Online. Trust the Official Cert Guide series from VMware Press to help you learn, prepare, and practice for exam success. They are the only VMware authorized self-study books and are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. · Master VMware VCP550 exam topics · Assess your knowledge with chapter-opening quizzes · Review key concepts with exam preparation tasks · Practice with realistic exam questions on the DVD This is the eBook edition of the VCP5-DCV Official Certification Guide. This eBook does not include the companion DVD with practice exam that comes with the print edition. VCP5-DCV Official Certification Guide presents you with an organized test-preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Well regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The official study guide helps you master all the topics on the VCP550 exam. Key topics include · Installing, upgrading, and securing all the key components in your vSphere, including ESXi hosts, vCenter, datastores, and network components · Networking components in vSphere, including vSphere standard switch and vSphere distributed switch concepts · Configuring and managing all forms of storage, including Fibre Channel, iSCSI, and network-attached storage · Creating, configuring, and managing virtual machines and vApps · Keeping your vSphere running smoothly and recovering quickly from any failure, including services that improve overall utilization and recoverability · Identifying the key components of your vSphere and how they work

together · Understanding the “core four” resources in any computer system: CPU, memory, disk, and network · Preparing to schedule, take, and pass the VCP550 test VCP5-DCV Official Certification Guide is part of a recommended learning path from VMware that includes simulation and hands-on training from authorized VMware instructors and self-study products from VMware Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered worldwide, please visit www.vmware.com/training.

IBM SAN and SVC Stretched Cluster and VMware Solution Implementation-Jon Tate 2013-07-28 This IBM® Redbooks® publication describes the IBM Storage Area Network and IBM SAN Volume Controller Stretched Cluster solution when combined with VMware. We describe guidelines, settings, and implementation steps necessary to achieve a satisfactory implementation. Business continuity and continuous application availability are among the top requirements for many organizations today. Advances in virtualization, storage, and networking have made enhanced business continuity possible. Information technology solutions can now be designed to manage both planned and unplanned outages, and the flexibility and cost efficiencies available from cloud computing models. IBM has designed a solution that offers significant functionality for maintaining business continuity in a VMware environment. This functionality provides the capability to dynamically move applications across data centers without interruption to those applications. The live application mobility across data centers relies on these products and technology: The industry-proven VMware Metro vMotion IBM System Storage® SAN Volume Controller Stretched Cluster solution A Layer 2 IP Network and storage networking infrastructure for high performance traffic management DC interconnect

VMware Software-Defined Storage-Martin Hosken 2016-08-29 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.

IBM Cloud Private System Administrator's Guide-Ahmed Azraq 2019-05-13 IBM® Cloud Private is an application platform for developing and managing containerized applications across hybrid cloud environments, on-premises and public clouds. It is an integrated environment for managing containers that includes the container orchestrator Kubernetes, a private image registry, a management console, and monitoring frameworks. This IBM Redbooks covers tasks

performed by IBM Cloud Private system administrators such as installation for high availability, configuration, backup and restore, using persistent volumes, networking, security, logging and monitoring. Istio integration, troubleshooting and so on. As part of this project we also developed several code examples and you can download those from the IBM Redbooks GitHub location:

<https://github.com/IBMRedbooks>. The authors team has many years of experience in implementing IBM Cloud Private and other cloud solutions in production environments, so throughout this document we took the approach of providing you the recommended practices in those areas. If you are an IBM Cloud Private system administrator, this book is for you. If you are developing applications on IBM Cloud Private, you can see the IBM Redbooks publication IBM Cloud Private Application Developer's Guide, SG24-8441.

DB2 Virtualization-Whei-Jen Chen 2009-11-25 Server virtualization technologies are becoming more popular to help efficiently utilize resources by consolidating servers. IBM®, the first company that developed and made available the virtual technology in 1966, offers advanced, powerful, reliable, and cost-saving virtualization technologies in various hardware and software products including DB2® for Linux, UNIX, and Windows. This IBM Redbooks® publication describes using IBM DB2 9 with server virtualization. We start with a general overview of virtualization and describe specific server virtualization technologies to highlight how the server virtualization technologies have been implemented. With this introduction anyone new to virtualization will have a better understanding of server virtualization and the industry server virtualization technologies available in the market. Following the virtualization concept, we describe in detail the setup, configuration, and managing of DB2 with three leading server virtualization technologies: IBM Power Systems™ with PowerVM™, VMware Hyper-V. We discuss the virtual machine setup with DB2 in mind to help IT support understand the effective ways of setting up a virtual environment specific for DB2. We explain the architecture and components of these three server virtualization technologies to allow DBAs to understand how a database environment using DB2 can benefit from using the server virtualization technologies. In addition, we discuss the DB2 features and

functions that can take advantage of using server virtualization. These features are put into practice when describing how to set up DB2 with the three virtualization technologies discussed in this book. This book also includes a list of best practices from the various tests performed while using these virtualization technologies. These best practices can be used as a guideline or a reference when setting up DB2 using these virtualization technologies.

IBM Tape Library Guide for Open Systems-Larry Coyne 2020-03-16 This IBM® Redbooks® publication presents a general introduction to the latest (current) IBM tape and tape library technologies. Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives, and their implementation in IBM tape libraries. This 17th edition includes information about the latest TS4300 Ultrium tape library, TS1155 Enterprise tape drive, and the IBM Linear Tape-Open (LTO) Ultrium 8 tape drive, along with technical information about each IBM tape product for open systems. It includes generalized sections about Small Computer System Interface (SCSI) and Fibre Channel connections, and multipath architecture configurations. This book also covers tools and techniques for library management. It is intended for anyone who wants to understand more about IBM tape products and their implementation. It is suitable for IBM clients, IBM Business Partners, IBM specialist sales representatives, and technical specialists. If you do not have a background in computer tape storage products, you might need to read other sources of information. In the interest of being concise, topics that are generally understood are not covered in detail.

Storage Networks Explained-Ulf Troppens 2005-08-05 "Storage Networks Explained has much to recommend it.... a rarity in the literature of digital data storage - a complete exposition of both the base subject matter and its applications, which at the same time offers a level of readability making it suitable as an introduction to the subject. Storage Networks Explained is also flexible. It can be read cover-to-cover, browsed, or used as a reference. I recommend Storage Networks Explained as an essential component of any active information technology library." —Paul Massiglia, Technical Director, VERITAS Software Corporation Storage networks

will become a basic technology like databases or local area networks. According to market research, 70% of external storage devices will be connected via storage networks in 2003. The authors have hands-on experience of network storage hardware and software, they teach customers about concrete network storage products, they understand the concepts behind storage networks, and show customers how storage networks address their business needs. Storage networks provide shared access to stored data from multiple computers and servers, thus increasing storage efficiency and availability. They permit information management functions such as backup and recovery, data mirroring, disaster recovery, and data migration to be performed quickly and efficiently, with a minimum of system overhead. This book explains how to use storage networks to fix malfunctioning business processes, covering the technologies as well as applications. A hot topic that will become increasingly important in the coming years. One of the first books to focus on using rather than building storage networks, and how to solve problems. Looking beyond technology and showing the true benefits of storage networks. Covers fibre channel SAN, Network Attached Storage, iSCSI and InfiniBand technologies. Contains several case studies (e.g. the example of a travel portal, protecting a critical database) Endorsed by the Storage Networking Industry Association. Written by very experienced professionals who tailored the book specifically to meet customer needs including support with supplementary material on Troppens website and Preface written by Tony Clark. Provides basic application information key for systems administrators, database administrators and managers who need to know about the networking aspects of their systems. As well as systems architects, network managers, information management directors and decision makers. This book also supports applications for graduate students and other relevant courses in the field. Awarded Best System Administration Book 2005 by the Linux Journal

The Ghidra Book-Chris Eagle 2020-09-08 A guide to using the Ghidra software reverse engineering tool suite. The result of more than a decade of research and development within the NSA, the Ghidra platform was developed to address some of the agency's most challenging reverse-engineering problems. With the open-

source release of this formerly restricted tool suite, one of the world's most capable disassemblers and intuitive decompilers is now in the hands of cybersecurity defenders everywhere -- and The Ghidra Book is the one and only guide you need to master it. In addition to discussing RE techniques useful in analyzing software and malware of all kinds, the book thoroughly introduces Ghidra's components, features, and unique capacity for group collaboration. You'll learn how to:

- Navigate a disassembly
- Use Ghidra's built-in decompiler to expedite analysis
- Analyze obfuscated binaries
- Extend Ghidra to recognize new data types
- Build new Ghidra analyzers and loaders
- Add support for new processors and instruction sets
- Script Ghidra tasks to automate workflows
- Set up and use a collaborative reverse engineering environment

Designed for beginner and advanced users alike, The Ghidra Book will effectively prepare you to meet the needs and challenges of RE, so you can analyze files like a pro.

Block Storage Migration in Open

Environments-Francesco Anderloni 2020-04-16 Companies need to migrate data not only when technology needs to be replaced, but also for consolidation, load balancing, and disaster recovery (DR). Data migration is a critical operation, and this book explains the phases and steps to ensure a smooth migration. Topics range from planning and preparation to execution and validation. The book explains, from a generic standpoint, the appliance-based, storage-based, and host-based techniques that can be used to accomplish the migration. Each method is explained through practical migration scenarios and for various operating systems. This publication addresses the aspects of data migration efforts while focusing on fixed block storage systems in open environment with the IBM® FlashSystem 9100 as the target system. Therefore, the book also emphasizes various migration techniques using the Spectrum Virtualize built-in functions. This document targets storage administrators, storage network administrators, system designers, architects, and IT professionals who design, administer or plan data migrations in large data Centers. The aim is to ensure that you are aware of the current thinking, methods, and products that IBM can make available to you. These items are provided to ensure a data migration process that is as efficient and problem-free as possible. The material presented in this book was developed

with versions of the referenced products as of February, 2020.

Private Cloud Computing-Stephen R. Smoot 2012 Chapter 1 -- Next-Generation IT Trends -- Layers of Function: The Service-Oriented Infrastructure Framework -- Blocks of Function: The Cloud Modules -- Cloud Computing Characteristics -- Computing Taxonomy -- Chapter 2 -- Next-Generation Data Center Architectures and Technologies -- The Data Center Consolidation and Virtualization Modus Operandi -- Server Consolidation Drivers -- Server Virtualization -- Storage Virtualization -- Layer 2 Evolutions -- Unified Data Center Fabric - - Chapter 3 -- Next-Generation WAN and Service Integration -- Service Integration in the Data Center -- Infrastructure Segmentation -- The Next-Generation Enterprise WAN -- Chapter 4 -- Branch Consolidation and WAN Optimization -- What is the WAN performance challenge? -- WAN Optimization Benefits -- Requirements for WAN Optimization Deployment -- Remote Office Virtualization Designs -- Chapter 5 -- Session Interception Design and Deployment -- Selecting an Interception Mechanism -- The WCCP Dive -- In-path Dep ...

Using SANs and NAS-Curtis Preston 2002 Compares the architecture, management responsibilities, storage procedures, size, and reliability of the information storage and retrieval technologies.

Mastering VMware vSphere 6.7-Martin Gavanda 2019-03-07 Unleash the benefits of VMware vSphere 6.7 to provide a powerful, flexible and secure digital infrastructure Key Features Deep dive into areas like management, security, scalability, availability and more with vSphere 6.7 Design, deploy and manage VMware vSphere virtual datacenters Implement monitoring and security of VMware workloads with ease Book Description VMware vSphere provides a powerful, flexible and secure foundation for next-generation applications and datacenters that help you with your digital transformation efficiently. Mastering VMware vSphere, 6.7, Second Edition begins by covering an overview of all the products, solutions and features of the vSphere 6.7 suite, comparing the evolutions with the previous releases. You'll learn to design and plan a virtualization infrastructure

to drive performance analysis and then proceed with the workflow and installation of components. Along with new network trends that will help you in optimally designing the vSphere environment, you will also learn the best practices involved in configuring and managing virtual machines in a vSphere infrastructure. With vSphere 6.7, you'll make use of more powerful capabilities for patching, upgrading and managing the configuration of the virtual environment. The concluding chapters focus on core vSphere components as storage and network and you will learn all you need about resource management followed by topics as high availability and disaster recovery, troubleshooting, monitoring and security. By the end the book you will discover different approaches on how to build your own VMware vSphere lab to help you run even the most demanding workloads What you will learn Get a deep understanding of vSphere 6.7 functionalities Design a virtualization environment based on VMware vSphere 6.7 Manage and administer a vSphere 6.7 environment and resources Get tips for the VCP6-DCV and VCIX6-DCV exams Implement different migration techniques across different environments Deploy and understand different concepts of VMware vSphere 6.7 lab Who this book is for If you are an administrator, infrastructure engineer, IT architect, or an IT consultant who has basic knowledge of VMware vSphere and now wants to master it, then this book is for you.

Implementing an IBM/Cisco SAN-Jon Tate 2009-03-09 "Do everything that is necessary and absolutely nothing that is not." In this IBM® Redbooks® publication, which is an update and major revision of the previous version, we have consolidated as much of the critical information as possible while discussing procedures and tasks that are likely to be encountered on a daily basis. Each of the products described has much more functionality than we could cover in just one book. The IBM SAN portfolio is rich in quality products that bring a vast amount of technicality and vitality to the SAN world. Their inclusion and selection is based on a thorough understanding of the storage networking environment that positions IBM, and therefore its customers and partners, in an ideal position to take advantage by their deployment. We discuss the latest additions to the IBM/Cisco SAN family and we show how they can be implemented in an

open systems environment, focusing on the Fibre Channel protocol (FCP) environment. We address some of the key concepts that they bring to the market, and in each case, we give an overview of those functions that are essential to building a robust SAN environment.

Data Center Fundamentals-Mauricio

Arregoces 2003-12-04 Master the basics of data centers to build server farms that enhance your Web site performance Learn design guidelines that show how to deploy server farms in highly available and scalable environments Plan site performance capacity with discussions of server farm architectures and their real-life applications to determine your system needs Today's market demands that businesses have an Internet presence through which they can perform e-commerce and customer support, and establish a presence that can attract and increase their customer base. Underestimated hit ratios, compromised credit card records, perceived slow Web site access, or the infamous "Object Not Found" alerts make the difference between a successful online presence and one that is bound to fail. These challenges can be solved in part with the use of data center technology. Data centers switch traffic based on information at the Network, Transport, or Application layers. Content switches perform the "best server" selection process to direct users' requests for a specific service to a server in a server farm. The best server selection process takes into account both server load and availability, and the existence and consistency of the requested content. Data Center Fundamentals helps you understand the basic concepts behind the design and scaling of server farms using data center and content switching technologies. It addresses the principles and concepts needed to take on the most common challenges encountered during planning, implementing, and managing Internet and intranet IP-based server farms. An in-depth analysis of the data center technology with real-life scenarios make Data Center Fundamentals an ideal reference for understanding, planning, and designing Web hosting and e-commerce environments.

Learning VMware vSphere-Abhilash G B

2016-10-14 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.

IBM and Cisco: Together for a World Class Data Center-Jon Tate 2013-07-31 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.

VMware Vsphere 5.1 Clustering Deepdive-

Duncan Epping 2012 VMware vSphere 5.1 Clustering Deepdive is the follow-up to best seller vSphere 5.0 Clustering Deepdive and zooms in on three key components of every VMware based infrastructure and. It provides the knowledge and expertise needed to create a cloud infrastructure based on the solid foundation of vSphere HA, vSphere DRS and vSphere Storage DRS. It explains the concepts and mechanisms behind HA, DRS and Storage DRS which will enable you to make well educated decisions. Besides a brand new stretched cluster use case section it includes a fully rewritten Storage DRS section, and new details on both vSphere HA and vSphere DRS. This book will take you in to the trenches of HA, DRS and Storage DRS and will give you the tools to understand and implement e.g. HA admission control policies, DRS resource pools, Datastore Clusters and resource allocation settings. Each section contains basic design principles that can be used for designing, implementing or improving VMware infrastructures. Coverage includes: Stretched Clusters HA node types HA isolation detection and response HA admission control VM Monitoring HA and DRS integration DRS imbalance algorithm Resource Pools Impact of reservations and limits CPU Resource Scheduling Memory Scheduler DPM Datastore Clusters Storage DRS algorithm Influencing SDRS recommendations