

## Vapp Backup And Restore Using Vmware Vsphere Data

Must-have für Administratoren Veeam Backup & Replication ist die Backup-und Replikationslösung für virtuelle und physische Maschinen mit Windows und Linux als Betriebssystem und VMware oder Hyper-V als Basis. Dieses Backup-Programm wurde nicht umsonst schon mehrfach ausgezeichnet. Es nimmt dem Benutzer die schwierigen Aufgaben ab und arbeitet im Hintergrund stabil und zuverlässig. Das Buch beginnt mit der Installation der Software und optionalen Komponenten sowie deren Voraussetzungen und behandelt alle wichtigen Einstellungs-und Konfigurationsmöglichkeiten der Software. Es gibt Hinweise und Tipps aus der Praxis, bietet Lösungsmöglichkeiten bei Problemen und erklärt Funktionen wie 3-2-1, GFS, synthetische Backups, Wiederherstellungsmöglichkeiten von AD, SQL, Oracle, Exchange sowie SharePoint, Einrichten von SureBackup-Jobs und vieles mehr. Ralph Göpel ermöglicht allen Admin-Profis den raschen Einstieg in Veeam und vermittelt alles, was Sie zu einem erfolgreichen Einsatz benötigen.

Evolve to a virtual network infrastructure using VMware vSphere 4 Design and deploy a high-performance cloud-based enterprise IT platform with guidance from a VMware expert. Featuring tips, techniques, and best practices, VMware vSphere 4 Implementation explains how to dramatically cut hardware costs, maximize computing power, and centralize system administration. Configure hardware and storage devices, build virtual machines and networks, install guest operating systems, and import physical machines. Security, disaster recovery, performance tuning, and system updates are also covered in this comprehensive resource. Perform a clean VMware vSphere 4 install or migrate existing systems Build Distributed Virtual Networks using DvSwitches and VMotion Manage SAN, NAS, iSCSI, and fiber channel storage devices Construct VM and provision new copies of Windows/Linux from vCenter Automate server maintenance with the Distributed Resource Scheduler Set up multiple security zones, users, permissions, roles, and privileges Maximize uptime using VMware High Availability and Fault Tolerance Work with VMware Consolidated Backup, vDR, and Update Manager Mike Laverick is a VMware Forum moderator and member of the London VMware User Group steering committee. He is the sole author of the virtualization website/blog, RTFM Education. Mike recently received the vExperts Award from VMware.

VMware ESXi is the easiest way to get started with virtualization -- and it's free. It allows administrators to consolidate their applications onto fewer servers and start saving money through reduced hardware, power, cooling, and administration costs. VMware ESXi has been optimized and tested to run even their most resource-intensive applications and databases with minimal performance overhead. "VMware ESXi: Planning, Implementation, and Security" covers the key features critical to successfully planning for and implementing VMware's ESXi. The book is perfect for current VMware VI3 and vSphere administrators who may be planning their migration to vSphere ESXi. These users may have some experience with ESXi but not yet have it deployed within their production environment. This book provides the guidance to implement ESXi in their environment, ensuring a smooth transition from their current deployment of ESX.

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.

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.

Electric Vehicle Battery Systems provides operational theory and design guidance for engineers and technicians working to design and develop efficient electric vehicle (EV) power sources. As Zero Emission Vehicles become a requirement in more areas of the world, the technology required to design and maintain their complex battery systems is needed not only by the vehicle designers, but by those who will provide recharging and maintenance services, as well as utility infrastructure providers. Includes fuel cell and hybrid vehicle applications. Written with cost and efficiency foremost in mind, Electric Vehicle Battery Systems offers essential details on failure mode analysis of VRLA, NiMH

battery systems, the fast-charging of electric vehicle battery systems based on Pb-acid, NiMH, Li-ion technologies, and much more. Key coverage includes issues that can affect electric vehicle performance, such as total battery capacity, battery charging and discharging, and battery temperature constraints. The author also explores electric vehicle performance, battery testing (15 core performance tests provided), lithium-ion batteries, fuel cells and hybrid vehicles. In order to make a practical electric vehicle, a thorough understanding of the operation of a set of batteries in a pack is necessary. Expertly written and researched, Electric Vehicle Battery Systems will prove invaluable to automotive engineers, electronics and integrated circuit design engineers, and anyone whose interests involve electric vehicles and battery systems. \* Addresses cost and efficiency as key elements in the design process \* Provides comprehensive coverage of the theory, operation, and configuration of complex battery systems, including Pb-acid, NiMH, and Li-ion technologies \* Provides comprehensive coverage of the theory, operation, and configuration of complex battery systems, including Pb-acid, NiMH, and Li-ion technologies

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.

It's All About Delivering Service with vCloud Director Empowered by virtualization, companies are not just moving into the cloud, they're moving into private clouds for greater security, flexibility, and cost savings. However, this move involves more than just infrastructure. It also represents a different business model and a new way to provide services. In this detailed book, VMware vExpert Simon Gallagher makes sense of private cloud computing for IT administrators. From basic cloud theory and strategies for adoption to practical implementation, he covers all the issues. You'll learn how to build a private cloud and deliver it as a service using VMware vCloud Director 5.1. Consider what it takes to transition to the cloud, including the business, technical, and operational issues Get familiar with the essential tools—the vCloud Director 5.1 suite Understand the delivery model of infrastructure-as-a-service Define a service catalog, including determining how to track and allocate costs and design for service levels Measure the impact of a private cloud on your legacy applications and infrastructure Implement efficient operations—learn how to apply automation, set up backup and restore, and maintain HA Deliver an end-to-end solution to an end user with a fully managed guest Foreword by Joe Baguley, Chief Technologist, EMEA, VMware

When you hear IBM® Tivoli® Storage Manager, the first thing that you typically think of is data backup. Tivoli Storage Manager is the premier storage management solution for mixed platform environments. Businesses face a tidal wave of information and data that seems to increase daily. The ability to successfully and efficiently manage information and data has become imperative. The Tivoli Storage Manager family of products helps businesses successfully gain better control and efficiently manage the information tidal wave through significant enhancements in multiple facets of data protection. Tivoli Storage Manager is a highly scalable and available data protection solution. It takes data protection scalability to the next level with a relational database, which is based on IBM DB2® technology. Greater availability is delivered through enhancements such as online, automated database reorganization. This IBM Redbooks® publication describes the evolving set of data-protection challenges and how capabilities in Tivoli Storage Manager can best be used to address those challenges. This book is more than merely a description of new and changed functions in Tivoli Storage Manager; it is a guide to use for your overall data protection solution.

Trust the bestselling Official Cert Guide series from VMware Press to help you learn, prepare, and practice for VCP5 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. \*\*Note to readers\*\* In March 2013 VMware renamed the VCP5 (VMware Certified Professional on vSphere 5) to VCP5-DCV (VMware Certified Professional on vSphere 5 - Data Center Virtualization). The Official VCP5 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. Master VMware VCP510 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks The Official VCP5 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](http://www.vmware.com/training).

The VMware Certified Professional on vSphere 5—Datacenter Virtualization (VCP5-DCV) certification is the most desired certification for virtualization professionals, and this study guide covers all the requirements for the exam. Skill in virtualization is a top priority for companies when hiring IT staff, and VMware skills are in high demand. Part of the highly acclaimed Sybex Study Guide series, this comprehensive book guides you through planning, installing, and upgrading ESXi; configuring networking, storage, and vCenter Server; deploying and managing virtual machines, and much more. Virtualization skills are in high demand by employers, and the VCP5-DCV certification enhances your marketability as an IT professional This Sybex Study Guide helps prepare you to successfully complete all parts of the exam Covers all aspects of ESXi planning, installation, upgrading, configuration, troubleshooting, and alarm management Includes 100% coverage of the exam objectives, real world scenarios, hands-on exercises, challenging review questions, bonus practice exams, and electronic flashcards If you want the best preparation for the VCP5-DCV exam, this is the study guide you need.

Master vSphere automation with this comprehensive reference VMware vSphere PowerCLI Reference, Automating vSphere Administration, 2nd Edition is a one-stop solution for vSphere automation. Fully updated to align with the latest vSphere and PowerCLI release, this detailed guide shows you how to get the most out of PowerCLI's handy cmdlets using real-world examples and a practical, task-based approach. You'll learn how to store, access, update, back up, and secure massive amounts of data quickly through the power of virtualization automation, and you'll get acquainted with PowerCLI as you learn how to automate management, monitoring, and life-cycle operations for vSphere. Coverage includes areas like the PowerCLI SDK, SRM, vCOPS, and vCloud Air. Plus guidance toward scheduling and viewing automation, using DevOps methodology and structured testing and source control of your PowerCLI scripts. Clear language and detailed explanations make this reference the manual you've been looking for. This book is your complete reference for managing vSphere in a Windows environment, with expert instruction and real-world application. Automate vCenter Server deployment and configuration Create and configure virtual machines, and utilize vApps Monitor, audit, and report the status of your vSphere environment Secure, back up, and restore your virtual machines Work with other vSphere components from your PowerCLI scripts Take control of your PowerCLI scripts through versioning and structured testing Don't spend another day slogging through routine systems management — automate it, with this invaluable guide.

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

vSphere 6 Foundations Exam Official Cert Guide (Exam #2V0-620) vSphere 6 Foundations Exam Official Cert Guide (Exam #2V0-620) presents you with an organized test-preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Master VMware vSphere 6 Foundations Exam topics · Assess your knowledge with chapter-opening quizzes · Review key concepts with exam-preparation tasks · Practice with realistic exam questions vSphere 6 Foundations Exam Official Cert Guide (Exam #2V0-620) focuses specifically on the objectives for the vSphere 6 Foundations (#2V0-620)

Exam. Leading VMware consultant and trainer Bill Ferguson shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The companion website contains a powerful Pearson IT Certification Practice Test engine that enables you to focus on individual topic areas or take a complete, timed exam. The assessment engine tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most. Well regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. vSphere 6 Foundations Exam Official Cert Guide (Exam #2V0-620) 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](http://www.vmware.com/training). The official study guide helps you master all the topics on the vSphere 6 Foundations Exam (#2V0-620), including

- Identifying vSphere architecture and solutions for a given use case
- Installing and configuring vCenter Server and ESXi
- Configuring vSphere networking, including vSS, vDS, and their features
- Configuring vSphere storage
- Deploying and administering virtual machines, VM clones, templates, and vApps
- Establishing and maintaining availability and resource management features, including clusters, fault tolerance, and resource pools
- Troubleshooting ESXi, vCenter Server, vCenter operations, VM operations, and basic misconfigurations
- Monitoring a vSphere implementation, including ESXi, vCenter Server, and virtual machines
- Installing, configuring, and managing vCenter Operations Manager

This is the fundamental truth about data protection: backup is dead. Or rather, backup and recovery, as a standalone topic, no longer has relevance in IT. As a standalone topic, it's been killed off by seemingly exponential growth in storage and data, by the cloud, and by virtualization. So what is data protection? This book takes a holistic, business-based approach to data protection. It explains how data protection is a mix of proactive and reactive planning, technology and activities that allow for data continuity. It shows how truly effective data protection comes from a holistic approach considering the entire data lifecycle and all required SLAs. Data protection is neither RAID nor is it continuous availability, replication, snapshots or backups—it is all of them, combined in a considered and measured approach to suit the criticality of the data and meet all the requirements of the business. The book also discusses how businesses seeking to creatively leverage their IT investments and to drive through cost optimization are increasingly looking at data protection as a mechanism to achieve those goals. In addition to being a type of insurance policy, data protection is becoming an enabler for new processes around data movement and data processing. This book arms readers with information critical for making decisions on how data can be protected against loss in the cloud, on-premises, or in a mix of the two. It explains the changing face of recovery in a highly virtualized data center and techniques for dealing with big data. Moreover, it presents a model for where data recovery processes can be integrated with IT governance and management in order to achieve the right focus on recoverability across the business.

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.

Make the most of software-defined data centers with revolutionary VMware technologies About This Book Learn how you can automate your data center operations and deploy and manage applications and services across your public, private, and hybrid infrastructure in minutes Drive great business results with cost-effective solutions without compromising on ease, security, and controls Transform your business processes and operations in a way that delivers any application, anywhere, with complete peace of mind Who This Book Is For If you are an IT professional or VMware administrator who virtualizes data centers and IT infrastructures, this book is for you. Developers and DevOps engineers who deploy applications and services would also find this book useful. Data center architects and those at the CXO level who make decisions will appreciate the value in the content. What You Will Learn Understand and optimize end-to-end processes in your data center Translate IT processes and business needs into a technical design Apply and create vRO workflow automation functionalities to services Deploy NSX in a virtual environment Technically accomplish DevOps offerings Set up and use vROPs to master the SDDC resource demands Troubleshoot all the components of SDDC In Detail VMware offers the industry-leading software-defined data center (SDDC) architecture that combines compute, storage, networking, and management offerings into a single unified platform. This book uses the most up-to-date, cutting-edge VMware products to help you deliver a complete unified hybrid cloud experience within your infrastructure. It will help you build a unified hybrid cloud based on SDDC architecture and practices to deliver a fully virtualized infrastructure with cost-effective IT outcomes. In the process, you will use some of the most advanced VMware products such as vSphere, vCloud, and NSX. You will learn how to use vSphere virtualization in a software-defined approach, which will help you to achieve a fully-virtualized infrastructure and to extend this infrastructure for compute, network, and storage-related data center services. You will also learn how to use EVO:RAIL. Next, you will see how to provision applications and IT services on private clouds or IaaS with seamless accessibility and mobility across the hybrid environment. This book will ensure you develop an SDDC approach for your datacenter that fulfills your

organization's needs and tremendously boosts your agility and flexibility. It will also teach you how to draft, design, and deploy toolsets and software to automate your datacenter and speed up IT delivery to meet your lines of businesses demands. At the end, you will build unified hybrid clouds that dramatically boost your IT outcomes. Style and approach With the ever-changing nature of businesses and enterprises, having the capability to navigate through the complexities is of utmost importance. This book takes an approach that combines industry expertise with revolutionary VMware products to deliver a complete SDDC experience through practical examples and techniques, with proven cost-effective benefits.

Learning PowerCLI is written in a friendly and practical style with a focus on getting you started and automating daily tasks quickly and efficiently. If you manage or administrate a vSphere environment, and want to make that easier and more efficient, then this book is for you! This book is ideal for you if you want to learn how to automate your VMware vSphere infrastructure, by getting the most out of PowerCLI. It's assumed that you have some experience in administrating a VMware vSphere environment. Knowledge of Microsoft's Windows PowerShell is not a prerequisite.

Learn how to virtualize your network and discover the full potential of a Software Defined Data Center. A smarter way to use network resources begins here About This Book Experience the dynamism and flexibility of a virtualized software defined data center with NSX Find out how to design your network infrastructure based on what your organization needs From security to automation, discover how NSX's impressive range of features can unlock a more effective and intelligent approach to system administration Who This Book Is For If you're a network administrator and want a simple but powerful solution to your network virtualization headaches, look no further than this fast-paced, practical guide. What You Will Learn Deep dive into NSX-v Manager, Controller deployment, and design decisions Get to know the strategies needed to make decisions on each mode of VXLAN that is based on physical network design Deploy Edge Gateway and leverage all the gateway features and design decisions Get to grips with NSX-v Security features and automate security Leverage Cross VC, identify the benefits, and work through a few deployment scenarios Troubleshoot an NSX-v to isolate problems and identify solutions through a step-by-step process In Detail VMware NSX is at the forefront of the software-defined networking revolution. It makes it even easier for organizations to unlock the full benefits of a software-defined data center – scalability, flexibility – while adding in vital security and automation features to keep any sysadmin happy. Software alone won't power your business – with NSX you can use it more effectively than ever before, optimizing your resources and reducing costs. Getting started should be easy – this guide makes sure it is. It takes you through the core components of NSX, demonstrating how to set it up, customize it within your current network architecture. You'll learn the principles of effective design, as well as some things you may need to take into consideration when you're creating your virtual networks. We'll also show you how to construct and maintain virtual networks, and how to deal with any tricky situations and failures. By the end, you'll be confident you can deliver, scale and secure an exemplary virtualized network with NSX. Style and approach This book provides you with an introduction to software-defined networking with VMware NSX. Focusing on the most essential elements, so you can put your knowledge into practice quickly, it's a guide dedicated to anyone who understands that sometimes real-world problems require virtualized solutions.

Learn the intricacies of managing Azure AD, Azure AD Connect as well as Active Directory for administration on cloud and Windows Server 2019 Key Features Expert solutions for the federation, certificates, security, and monitoring with Active Directory Explore Azure AD and AD Connect for effective administration on cloud Automate security tasks using Active Directory and PowerShell Book Description Active Directory is an administration system for Windows administrators to automate network, security and access management tasks in the Windows infrastructure. This book starts off with a detailed focus on forests, domains, trusts, schemas and partitions. Next, you learn how to manage domain controllers, organizational units and the default containers. Going forward, you deep dive into managing Active Directory sites as well as identifying and solving replication problems. The next set of chapters covers the different components of Active Directory and discusses the management of users, groups and computers. You also go through recipes that help you manage your Active Directory domains, manage user and groups objects and computer accounts, expiring group memberships and group Managed Service Accounts with PowerShell. You learn how to work with Group Policy and how to get the most out of it. The last set of chapters covers federation, security and monitoring. You will also learn about Azure Active Directory and how to integrate on-premises Active Directory with Azure AD. You learn how Azure AD Connect synchronization works, which will help you manage Azure AD. By the end of the book, you have learned in detail about Active Directory and Azure AD, too. What you will learn Manage new Active Directory features, such as the Recycle Bin, group Managed Service Accounts, and fine-grained password policies Work with Active Directory from the command line and use Windows PowerShell to automate tasks Create and remove forests, domains, and trusts Create groups, modify group scope and type, and manage memberships Delegate control, view and modify permissions Optimize Active Directory and Azure AD in terms of security Who this book is for This book will cater to administrators of existing Active Directory Domain Services environments and/or Azure AD tenants, looking for guidance to optimize their day-to-day effectiveness. Basic networking and Windows Server Operating System knowledge would come in handy.

The 2013 edition of the bestselling vSphere book on the market Virtualization remains the hottest trend in the IT world, and VMware vSphere is the industry's most widely deployed virtualization solution. The demand for IT professionals skilled in virtualization and cloud-related technologies is great and expected to keep growing. This comprehensive Sybex guide covers all the features and capabilities of VMware vSphere, showing administrators step by step how to install, configure, operate, manage, and secure it. This perfect blend of hands-on instruction, conceptual explanation, and practical application is reinforced with real-world examples. Led by Scott Lowe and Nick Marshall, both VMware vExperts, the author team provides expertise that will prepare IT professionals to excel in using this virtualization technology. Virtualization is seen as a "best practice" for high availability and disaster recovery solutions, as well as for applications such as Exchange Server and SharePoint IDC estimates that there are as many as 7 million jobs available worldwide in virtualization and cloud technology Provides hands-on instruction in all the latest features and capabilities of VMware vSphere, with both conceptual explanations and practical applications Author team is lead by Scott Lowe and Nick Marshall, well-known VMware experts and popular bloggers Mastering VMware vSphere provides what every virtualization professional needs to know.

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

vSphere 6.7 is the latest release of VMware's industry-leading, virtual cloud platform. It allows organisations to move to hybrid cloud computing by enabling them to run, manage, connect and secure applications in a common operating environment. This up-to-date, 2nd edition provides complete coverage of vSphere 6.7. Complete with step-by-step explanations of essential concepts, practical examples and self-assessment questions, you will begin with an overview of the products, solutions and features of the vSphere 6.7 suite. You'll learn how to design and plan a virtual infrastructure and look at the workflow and installation of components. You'll gain insight into best practice configuration, management and security. By the end the book you'll be able to build your own VMware vSphere lab that can run even the most demanding of workloads. What you will learn Explore the immense functionality of vSphere 6.7 Design, manage and administer a virtualization environment Get tips for the VCP6-DCV and VCIX6-DCV exams Understand how to implement different migration techniques across different environments Explore vSphere 6.7's powerful capabilities for patching, upgrading and managing the configuration of virtual environments. Understand core vSphere components Master resource management, disaster recovery, troubleshooting, monitoring and security Who this book is for This book is for Administrators, Infrastructure Engineers, Architects, and Consultants with basic knowledge of VMware vSphere.

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 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

Prepare for the VCP-DCV Exam Prepare yourself for VMware's challenging VMware Certified Professional-Data Center Virtualization exam, as well as the typical tasks and responsibilities you can expect as a VMware vSphere 5.5-certified professional. This comprehensive book guides you through all topics and objectives you'll need to know for the exam. These include planning, installing, upgrading, and securing vCenter Server and ESXi; configuring networking and storage; performing basic troubleshooting; and more. You'll also gain access to premium online practice and review tools. Prepares certification candidates for the VMware Certified Professional-Data Center Virtualization exam (VCP-DCV) Covers all exam objectives Features real-world scenarios, hands-on exercises, and challenging review questions Explores key topics such as securing vCenter and ESXi, planning and configuring vSphere networking and storage, creating and deploying virtual machines and vApps, establishing services levels, and more Includes access to online practice exams, flashcards, and other study tools If you want the best preparation for the VCP-DCV certification exam, you'll want VCP-DCV VMware Certified Professional Data Center Virtualization on vSphere Study Guide.

A step-by-step guide to identifying and defending against attacks on the virtual environment As more and more data is moved into virtual environments the need to secure them becomes increasingly important. Useful for service providers as well as enterprise and small business IT professionals the book offers a broad look across virtualization used in various industries as well as a narrow view of vulnerabilities unique to virtual environments. A companion DVD is included with recipes and testing scripts. Examines the difference in a virtual model versus traditional computing models and the appropriate technology and procedures to defend it from attack Dissects and exposes attacks targeted at the virtual environment and the steps necessary for defense Covers information security in virtual environments: building a virtual attack lab, finding leaks, getting a side-channel, denying or compromising services, abusing the hypervisor, forcing an interception, and spreading infestations Accompanying DVD includes hands-on examples and code This how-to guide arms IT managers, vendors, and architects of virtual environments with the tools they need to protect against common threats.

The complete vCAT printed reference: knowledge, tools, and validated designs for building high-value vCloud® solutions The vCloud Architecture Toolkit (vCAT) brings together validated designs, tools, and knowledge for architecting, implementing, operating, and consuming modern vCloud infrastructure based on the Software Defined Data Center (SDDC). vCAT has already helped hundreds of VMware customers succeed with vCloud. Now, pioneering VMware architect John Arrasjid has integrated essential vCAT information into a definitive printed guide, adding even more context and examples for successful planning and deployment. To do so, Arrasjid has distilled contributions from more than 100 VMware architects, consultants, administrators, engineers, project managers, and other technical leaders. VMware vCloud Architecture Toolkit (vCAT) is your complete roadmap for using virtualization to simplify data centers and related IT infrastructure. You'll find up-to-the-minute, field-proven insights for addressing a wide spectrum of challenges—from availability to interoperability, security to business continuity. Coverage includes vCAT design guidelines and patterns for efficiently architecting, operating, and consuming VMware cloud computing solutions Software-defined datacenter services for storage, networking, security, and availability People, process, and technology issues associated with effective vCloud operation and maintenance Efficient service consumption: consumption models, service catalogs, vApps, and service provider interactions Workflows to coordinate and automate task sequences, which extend beyond vCloud VMware vCloud Director® Server Resource Kit software tools Advanced "cloud bursting" and autoscaling techniques to dynamically leverage additional computing resources Planning and management of capacity, security, compliance, and disaster recovery

VMware® Horizon Suite The authoritative guide to delivering end-user services with VMware View and VMware Horizon Suite Today, IT professionals must manage stateless, mobile, streamed workspaces delivered across devices ranging from traditional PCs to tablets and smartphones. Using VMware View and VMware Horizon Suite, they can do so—providing flexible end-user services that support any business requirement cost effectively. Now there's a complete guide to planning, configuring, implementing, and integrating VMware Horizon Suite technologies and using them to deliver high-value end-user services in enterprise, managed, and cloud provider environments. This book's deep up-to-date technical content addresses considerations ranging from architecture, deployment, and operations to user experience and support. It offers detailed guidance on integration with VMware View and key third-party technologies.

Throughout, it fully reflects the newest VMware View releases, including VMware Horizon Mirage. Relevant, clear, and usable, VMware Horizon Suite contains step-by-step configuration examples, sample scenarios helping you choose the right technologies for your users' needs, and a complete end-user computing design checklist. Coverage includes • Understanding the new end-user service model and how VMware View and VMware Horizon address it • Mastering VMware View 6 and VMware Workspace 1.8 architectures • Leveraging proven installation and implementation techniques • Efficiently operating Connection, Security, and Transfer servers • Managing agents, clients, portals, composers, and personas • Integrating VMware View and Workspace • Implementing operational best practices, such as desktop pools, user data management, and SaaS • Using VMware Mirage to manage desktop images more intelligently and provide a wider spectrum of end-user services • Delivering multimedia within a View desktop environment • Integrating Microsoft Lync with VMware View • Monitoring VMware View and optimizing its performance

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](http://www.vmware.com/training).

This IBM® Redpaper™ publication helps you to install, tailor, configure, and use IBM Tivoli® Storage Manager for Virtual Environments - Data Protection for VMware. The features of Tivoli Storage Manager for Virtual Environments - Data Protection for VMware are described. Scenarios are provided for implementation of Tivoli Storage Manager Virtual Environment to protect virtual machines in several environments. This publication includes answers to common implementation errors and questions you might have that are related to the implementation of Data Protection for VMware.

\* A comprehensive study guide providing pilots the answers they need to excel on their technical interview \* Features nearly 1000 potential questions (and answers) that may be asked during the technical interview for pilot positions \* Wide scope--ranges from light aircraft through heavy jet operations \* Culled from interviewing practices of leading airlines worldwide \* Includes interviewing tips and techniques

The book is designed for the competent vCenter administrator or anyone who is responsible for the vSphere environment. It can be used as a guide by vSphere architects and VMware consultants for a successful vSphere solution. You should have good knowledge and an understanding of core elements and applications of the vSphere environment.

Leitfaden für Installation, Konfiguration und Optimierung Das Praxisbuch zur Standardsoftware Profi-Knowhow für Administrator\*innen Aktuell zur Version 7.0 Sie brauchen praxisrelevante Informationen zur technischen Realisierung einer virtualisierten Infrastruktur mittels vSphere 7.0? Dann halten Sie mit dem Praxishandbuch VMware vSphere 7.0 genau das richtige Buch in Ihren Händen. In diesem Handbuch finden Sie komprimiert alles, was Sie über Virtualisierung im Allgemeinen und vSphere 7.0 im Speziellen wissen müssen – samt unzähligen Tipps und Tricks aus der Praxis, Warnungen und Hinweisen zu angrenzenden Technologien. Schritt für Schritt zur optimalen virtualisierten Umgebung Das Buch gibt Ihnen schnell eine Übersicht über die einzelnen vSphere-Komponenten, deren Konfiguration und Optimierung. Sobald der Hypervisor (ESXi) installiert ist, können die ersten virtuellen Maschinen von Grund auf richtig eingerichtet und optimiert werden. Dann erfahren Sie, wie Sie Ihr Netzwerk am besten konfigurieren müssen und die ESXi Server an gemeinsamen Speicher anbinden. Was die Funktion Hostprofile, der VMware Lifecycle Manager oder der VMware Converter für Sie tun können, fehlt genauso wenig wie der Einsatz von vApps und Templates. Und auch wenn die vSphere-Umgebung steht, bleibt immer etwas zu tun: Backups und Sicherheitsstrategien (am Beispiel von Veeam Backup & Replication), die geschickte Verwaltung der Ressourcen und eine kontinuierliche Optimierung des laufenden Betriebs lassen sich mit den richtigen Werkzeugen und Konzepten besser in die Tat umsetzen. Auch die Kommandozeile und PowerCLI kommen nicht zu kurz. Aktualisierte fünfte Auflage Die fünfte Auflage wurde komplett auf VMware vSphere 7.0 aktualisiert. Zusätzlich aufgenommen wurden die Neuerungen von vSphere 7.0, z.B.

Lifecycle Manager, der vSphere-Client (HTML5), Appliance Management, Cluster Appliances und der neue vCenter Server auf Photon Linux Basis. Weiterhin beinhaltet die vierte Auflage die Themen Upgrade von einer Vorversion, NFS Storage unter Linux erstellen, Alarme, Hostprofile (erweitert), Security, Troubleshooting (erweitert) und eine bestmögliche Netzwerkkonfiguration. IBM® Spectrum Protect Plus is a data protection solution that provides near-instant recovery, replication, retention management, and reuse for virtual machines, databases, and applications backups in hybrid multicloud environments. IBM Knowledge Center for IBM Spectrum® Protect Plus provides extensive documentation for installation, deployment, and usage. In addition, build and size an IBM Spectrum Protect Plus solution. The goal of this IBM Redpaper® publication is to summarize and complement the available information by providing useful hints and tips that are based on the authors' practical experience in installing and supporting IBM Spectrum Protect Plus in customer environments. Over time, our aim is to compile a set of best practices that cover all aspects of the product, from planning and installation to tuning, maintenance, and troubleshooting.

In today's hyper-connected society, understanding the mechanisms of trust is crucial. Issues of trust are critical to solving problems as diverse as corporate responsibility, global warming, and the political system. In this insightful and entertaining book, Schneier weaves together ideas from across the social and biological sciences to explain how society induces trust. He shows the unique role of trust in facilitating and stabilizing human society. He discusses why and how trust has evolved, why it works the way it does, and the ways the information society is changing everything.

Learn how to define strategies for cloud adoption of your Oracle database landscape. Understand private cloud, public cloud, and hybrid cloud computing in order to successfully design and manage databases in the cloud. The Cloud DBA-Oracle provides an overview of Database-as-a-Service (DBaaS) that you can use in defining your cloud adoption strategy. In-depth details of various cloud service providers for Oracle database are given, including Oracle Cloud and Amazon Web Services (AWS). Database administration techniques relevant to hosting databases in the cloud are shown in the book as well as the technical details needed to perform all database administration tasks and activities, such as migration to the cloud, backup in the cloud, and new database setup in the cloud. You will learn from real-world business cases and practical examples of administration of Oracle database in the cloud, highlighting the challenges faced and solutions implemented. What you will learn: Cloud computing concepts from the DBA perspective, such as private cloud, public cloud, hybrid cloud Technical details of all aspects of cloud database administration Challenges faced during setup of databases in private cloud or database migration to public cloud Key points to be kept in mind during database administration in the cloud Practical examples of successful Oracle database cloud migration and support Who Is This Book For All levels of IT professionals, from executives responsible for determining database strategies to database administrators and database architects who manage and design databases.

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.

Best Practices, How-Tos, and Technical Deep Dives for Working VMware VI4/VI3 Pros Maximum vSphere is the comprehensive, up-to-the-minute, working reference for everyone who plans, implements, or administers VMware virtual infrastructure. Authored by top VMware consultants, it brings together proven best practices, tips, and solutions for achieving outstanding performance and reliability in your production environment. This book brings together crucial knowledge you won't find anywhere else, including powerful new vSphere 4 techniques drawn from the experiences of dozens of advanced practitioners. You'll find sophisticated, expert coverage of virtual machines, vCenter Server, networking, storage, backups, vMotion, fault tolerance, vSphere management, installation, upgrades, security, and much more. Author Eric Siebert takes the same hands-

on approach that made his VMware® VI3 Implementation and Administration so popular with working professionals. Whether you're implementing or managing vSphere 4, upgrading from older virtualization technologies, or taking new responsibilities in any VMware environment, you'll find this book indispensable. Coverage includes Understanding how key vSphere 4 changes affect production environments Working with ESX and ESXi hosts and host profiles Getting "under the hood" with vSphere 4 virtual machines Making the most of vCenter Server and plug-ins Choosing and configuring storage for maximum efficiency vSphere Networking: physical/virtual NICs, standard/distributed vSwitches, Cisco Nexus 1000V, and more Monitoring and troubleshooting vSphere performance: CPU, memory, disk/storage, and other issues Backing up and recovering VMware environments Using advanced features, including High Availability (HA), Distributed Resource, Distributed Power Management (DPM) and Vmotion Managing vSphere through the client, Web access, command line, Management Assistant, Powershell, ESX Service Console, and third-party tools Building your own vSphere 4 lab Performing more efficient installations and upgrades

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.

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 book focuses on a wide range of innovations related to Cybersecurity Education which include: curriculum development, faculty and professional development, laboratory enhancements, community outreach, and student learning. The book includes topics such as: Network Security, Biometric Security, Data Security, Operating Systems Security, Security Countermeasures, Database Security, Cloud Computing Security, Industrial Control and Embedded Systems Security, Cryptography, and Hardware and Supply Chain Security. The book introduces the concepts, techniques, methods, approaches and trends needed by cybersecurity specialists and educators for keeping current their security knowledge. Further, it provides a glimpse of future directions where cybersecurity techniques, policies, applications, and theories are headed. The book is a rich collection of carefully selected and reviewed manuscripts written by diverse cybersecurity experts in the listed fields and edited by prominent cybersecurity researchers and specialists.

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