Vrealize Automation Reference Architecture Vmware

Use self-driven data centers to reduce management complexity by deploying Infrastructure as Code to gain value from investments. Key Features Add smart capabilities in VMware Workspace ONE to deliver customer insights and improve overall security Optimize your HPC and big data infrastructure with the help of machine learning Automate your VMware data center operations with machine learning Book Description This book presents an introductory perspective on how machine learning plays an important role in a VMware environment. It offers a basic understanding of how to leverage machine learning primitives, along with a deeper look into integration with the VMware tools used for automation today. This book begins by highlighting how VMware addresses business issues related to its workforce, customers, and partners with emerging technologies such as machine learning to create new, intelligence-driven, end user experiences. You will learn how to apply machine learning techniques incorporated in VMware solutions for data center operations. You will go through management toolsets with a focus on machine learning techniques. At the end of the book, you will learn how the new vSphere Scale-Out edition can be used to ensure that HPC, big data performance, and other requirements can be met (either through development or by fine-tuning guidelines) with mainstream products. What you will learn Orchestrate on-demand deployments based on defined policies Automate away

common problems and make life easier by reducing errors Deliver services to end users rather than to virtual machines Reduce rework in a multi-layered scalable manner in any cloud Explore the centralized life cycle management of hybrid clouds Use common code so you can run it across any cloud Who this book is for This book is intended for those planning, designing, and implementing the virtualization/cloud components of the Software-Defined Data Center foundational infrastructure. It helps users to put intelligence in their automation tasks to get self driving data center. It is assumed that the reader has knowledge of, and some familiarity with, virtualization concepts and related topics, including storage, security, and networking.

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.

Learning VMware vRealize AutomationPackt Publishing Ltd

This IBM® RedpaperTM publication takes you on a journey that surveys cloud computing to answer several fundamental questions about storage cloud technology. What are storage clouds? How can a storage cloud help solve your current and future data storage business requirements? What can IBM do to help you implement a storage cloud solution that addresses these needs? This paper shows how IBM storage clouds use the extensive cloud computing experience, services, proven technologies, and products of IBM to support a smart storage cloud solution designed for your storage optimization efforts. Clients face many common storage challenges and some have variations that make them unique. It describes various successful client storage cloud implementations and the options that are available to meet your current needs and position you to avoid storage issues in the future. IBM CloudTM Services (IBM Cloud Managed Services® and IBM SoftLayer®) are highlighted as well as the contributions of IBM to OpenStack cloud storage. This paper is intended for anyone who wants to learn about storage clouds and how IBM addresses data storage challenges with smart storage cloud solutions. It is suitable for IBM clients, storage solution integrators, and IBM specialist sales representatives.

Gain expertise in troubleshooting most common issues to implement vSphere environments with ease About This Book Plan, analyze, and design effective solutions

for your vSphere environment Troubleshoot problems related to vSphere performance Familiarize yourself with the advanced troubleshooting conceptsand become an xpert level administrator Who This Book Is For The books is intended for mid-level System Engineers and System Integrators who want to learn VMware power tools to troubleshoot and manage the vSphere infrastructure. Good knowledge level and understanding of virtualization is expected. What You Will Learn Configure vSphere management assistant and troubleshooting tools Use troubleshooting tools to monitor performance and troubleshoot different issues Learn how to troubleshoot High Availability and other commonly known problems with clusters such as insufficient resources, failing heartbeats Use Direct Console User Interface (DCUI) to verify configuration Diagnose storage issues including iSCSI, NFS and VMFS problems Manage vSphere Network Virtual and Distributed Switches, Trunks, VLANS Monitor and shape network traffic, configure routes and DNS Quickly resolve common day-to-day problems by analysing logs of VMware vSphere hosts and VMware vCenter Server Debug and resolve commonly known vSphere Cluster problems In Detail VMware vSphere is the leading server virtualization platform with consistent management for virtual data centers. It enhances troubleshooting skills to diagnose and resolve day to day problems in your VMware vSphere infrastructure environment. This book will provide you practical hands-on knowledge of using different performance monitoring and troubleshooting tools to manage and troubleshoot the vSphere infrastructure. It

begins by introducing systematic approach for troubleshooting different problems and show casing the troubleshooting techniques. You will be able to use the troubleshooting tools to monitor performance, and troubleshoot issues related to Hosts and Virtual Machines. Moving on, you will troubleshoot High Availability, storage I/O control problems, virtual LANS, and iSCSI, NFS, VMFS issues. By the end of this book, you will be able to analyze and solve advanced issues related to vShpere environment such as vcenter certificates, database problems, and different failed state errors. Style and approach A step-by-step guide full of real world scenarios that will enhance advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere environment. Basic concepts of vSphere and the most common vSphere infrastructure problems are explained with practical solutions to resolve it. VMware vSphere??? ???????????????????????????????????????VMware vSphere????????????????????????vSphere 6??? ??? ????VMware???????vSphere 6.0????????? ??? ??????????????????????????????????VMware????????????? ?????????????????????? ??? Manage vRealize operations manager 6.6 effectively using this comprehensive guide. Key Features Get complete control of capacity management in your virtual environment

Display the most appropriate performance metrics and assemble your own dashboard Analyze and process data from different sources into a single repository Optimize vRealize Automation workload placement Book Description In the modern IT world, the criticality of managing the health, efficiency, and compliance of virtualized environments is more important than ever. With vRealize Operations Manager 6.6, you can make a difference to your business by being reactive rather than proactive. Mastering vRealize Operations Manager helps you streamline your processes and customize the environment to suit your needs. You will gain visibility across all devices in the network and retain full control. With easy-to-follow, step-by-step instructions and support images, you will quickly master the ability to manipulate your data and display it in a way that best suits you and your business or technical requirements. This book not only covers designing, installing, and upgrading vRealize Operations 6.6, but also gives you a deep understanding of its building blocks: badges, alerts, super metrics, views, dashboards, management packs, and plugins. With the new vRealize Operations 6.6 troubleshooting capabilities, capacity planning, intelligent workload placement, and additional monitoring capabilities, this book is aimed at ensuring you get the knowledge to manage your virtualized environment as effectively as possible. What you will learn Discover advanced vRealize Operations concepts and design your processes effectively for the underlying architecture Plan and install a new version or upgrade from a previous one Apply proven capacity management theories and techniques in

practical, real-world environments Manipulate data and metrics to display them in the most effective way possible Create custom views and dashboards fit for any use case Explore how policies have evolved in vRealize Operations 6.6 and how to apply them in the most effective manner Who this book is for If you are an administrator of a virtual environment and have used vRealize Operations before but want to gain a professional understanding by easily implementing complex tasks with it, then this book is for you. 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.

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

Identity management is the concept of providing a unifying interface to manage all aspects related to individuals and their interactions with the business. It is the process that enables business initiatives by efficiently managing the user life cycle (including identity/resource provisioning for people (users)), and by integrating it into the required business processes. Identity management encompasses all the data and processes related to the representation of an individual involved in electronic transactions. This IBM® Redbooks® publication provides an approach for designing an identity management solution with IBM Tivoli® Identity Manager Version 5.1. Starting from the high-level, organizational viewpoint, we show how to define user registration and maintenance processes using the self-registration and self-care interfaces as

well as the delegated administration capabilities. Using the integrated workflow, we automate the submission/approval processes for identity management requests, and with the automated user provisioning, we take workflow output and automatically implement the administrative requests on the environment with no administrative intervention. This book is a valuable resource for security administrators and architects who wish to understand and implement a centralized identity management and security infrastructure.

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.

Learn the fundamentals of vRealize Automation to accelerate the delivery of your IT services About This Book Learn to install the vRealize Automation product in a distributed architecture

using a load balancer Plan backup and recovery strategies for every vRealize automation component Use vRealize Automation to manage applications and improve operational efficiency using this simple and intuitive guide Who This Book Is For This book is for anyone who wants to start their journey with vRealize Automation. It is your one-stop instruction guide to installing and configuring a distributed setup using NSX load balancer. Regardless of whether or not you have used vRealize Automation before, following the steps provided in each chapter will get you started with the product. What You Will Learn Understand the basic building blocks of vRealize Automation before embarking on the journey of installation Familiarize yourself with the requirements and steps that need to be performed during the first phase of the distributed installation Carry out a functional validation of the first phase of installation before completing the installation Build a blueprint for vSphere endpoint, an essential step for a successful deployment of a service catalog Create, configure, and deploy tenants, endpoints, blueprints, and the service catalog Get to grips with the failover process for all components in vRealize Automation Learn to configure the NSX loadbalancer for vRealize Orchestrator for high availability Leverage ASD to develop XaaS (Anything as a Service) in vRealize Automation to deliver valuable competence In Detail With the growing interest in Software Defined Data Centers (SDDC), vRealize Automation offers data center users an organized service catalog and governance for administrators. This way, end users gain autonomy while the IT department stays in control, making sure security and compliance requirements are met. Learning what each component does and how they dovetail with each other will bolster your understanding of vRealize Automation. The book starts off with an introduction to the distributed architecture that has been tested and installed in large scale

deployments. Implementing and configuring distributed architecture with custom certificates is unarguably a demanding task, and it will be covered next. After this, we will progress with the installation. A vRealize Automation blueprint can be prepared in multiple ways; we will focus solely on vSphere endpoint blueprint. After this, we will discuss the high availability configuration via NSX loadbalancer for vRealize Orchestrator. Finally, we end with Advanced Service Designer, which provides service architects with the ability to create advanced services and publish them as catalog items. Style and approach This book takes a step-by-step approach, is explained in a conversational and easy-to-follow style, and includes ample screenshots . Each topic is explained sequentially through planning, preparing, installing, configuring, and validating of all vRealize Automation's components.

A clear, comprehensive guide to VMware's latest virtualization solution Mastering VMware NSX for vSphere is the ultimate guide to VMware's network security virtualization platform. Written by a rock star in the VMware community, this book offers invaluable guidance and crucial reference for every facet of NSX, with clear explanations that go far beyond the public documentation. Coverage includes NSX architecture, controllers, and edges; preparation and deployment; logical switches; VLANS and VXLANS; logical routers; virtualization; edge network services; firewall security; and much more to help you take full advantage of the platform's many features. More and more organizations are recognizing both the need for stronger network security and the powerful solution that is NSX; usage has doubled in the past year alone, and that trend is projected to grow—and these organizations need qualified professionals who know how to work effectively with the NSX platform. This book covers everything you need to know to exploit the platform's full functionality so you can: Step up

security at the application level Automate security and networking services Streamline infrastructure for better continuity Improve compliance by isolating systems that handle sensitive data VMware's NSX provides advanced security tools at a lower cost than traditional networking. As server virtualization has already become a de facto standard in many circles, network virtualization will follow quickly—and NSX positions VMware in the lead the way vSphere won the servers. NSX allows you to boost security at a granular level, streamline compliance, and build a more robust defense against the sort of problems that make headlines. Mastering VMware NSX for vSphere helps you get up to speed quickly and put this powerful platform to work for your organization.

If you are an administrator of a virtual environment and have used vROps before but want to gain a professional understanding by implementing complex tasks easily with it, then this book is for you.

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of

concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use
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

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. Simplify and automate server administration tasks with PowerCLI About This Book Automate VMware's VSphere environment by learning the essentials of PowerCLI Impress your peers by developing scripts to perform administration tasks Discover the intricate workings of PowerCLI through simple and real-life examples Who This Book Is For PowerCLI Essentials is focused toward virtualization professionals and system administrators who want to discover and learn about the automation techniques associated with PowerCLI for complex virtual environments. What You Will Learn Download and install PowerCLI and its basics as well as the basics of PowerShell Enchance your scritping experience Build longer scripts and simpler reports Relate a task in VMware administration to a PowerCLI script Discover methods to acquire and change information remotely Set up orchestrator to manage your workflow In Detail Have you ever wished you could automatically get a report with all the relevant information about your VMware environments in exactly the format you want? Or that you could automate a crucial task that needs to be performed on a regular basis? Powerful Command Line Interface (PowerCLI) scripts do all these things and much more for VMware environments. PowerCLI is a command-line interface tool used to

automate VMware vSphere environments. It is used to handle complicated administration tasks through use of various cmdlets and scripts, which are designed to handle certain aspects of VSphere servers and to help you manage them. This book will show you the intricacies of PowerCLI through real-life examples so that you can discover the art of PowerCLI scripting. At the start, you will be taught to download and install PowerCLI and will learn about the different versions of it. Moving further, you will be introduced to the GUI of PowerCLI and will find out how to develop single line scripts to duplicate running tasks, produce simple reports, and simplify administration. Next, you will learn about the methods available to get information remotely. Towards the end, you will be taught to set up orchestrator and build workflows in PowerShell with update manager and SRM scripts. Style and approach Each and every topic in this book is explained in a very easy-to-follow fashion with real-life, simple examples so you'll get an idea not only about working with PowerCLI, but will also get an idea about scripting.

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.
Today, new business models in the marketplace coexist with traditional ones and

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

VxRail's administration, lifecycle management, and cluster scale-out Explore migration methodologies for VxRail systems Book Description Hyper-converged infrastructure (HCI) can help you simplify the provisioning and daily operations of computing and storage. With this book, you'll understand how HCI can offload the day 0 deployment and day-to-day operations of a system administrator. You'll explore the VxRail Appliance, which is an HCI solution that provides lifecycle management, automation, and operational simplicity. Starting with an overview of the VxRail Appliance system architecture and components, you'll understand the benefits of the VxRail system and compare it with the environment of traditional servers and storage. As you advance, the book covers topics such as disaster recovery and active-active and active-passive solutions for VxRail. By the end of this book, you'll have gained the confidence to manage the deployment, administration, planning, and design of a VxRail system. What you will learn Set up the hardware and software requirements for a VxRail installation Monitor the status of VxRail appliances with the VxRail Manager plugin Get to grips with all the administration interfaces used to manage the VxRail appliance Understand vCenter roles and permissions management in the VxRail cluster Discover best practices for vSAN configuration in the VxRail cluster Find out about VxRail cluster scale-out rules and how to expand the VxRail cluster Deploy active-

passive solutions for VxRail with VMware Site Recovery Manager (SRM) Who this book is for If you are a system architect, system administrator, or consultant involved in planning and deploying VxRail HCI or want to learn how to use VxRail HCI, then this book is for you. Equivalent knowledge and administration experience with ESXi and vCenter Server will be helpful.

Mit der zunehmenden Bedeutung der Cloud ist es für größere Unternehmen wichtiger denn je, eine passende Cloud-Strategie zu entwickeln. Dabei ist nicht nur die Public Cloud relevant, sondern vermehrt auch die Private oder - die Kombination von beidem - die Hybrid Cloud, um die Automatisierung und Orchestrierung von IT-Services im eigenen Unternehmen zu ermöglichen. VMware bietet mit dem Produkt vRealize Automation eine leistungsstarke Lösung, um Ressourcen in der Cloud besser verwalten zu können, die IT zu automatisieren und somit Cloud-fähig zu gestalten, ohne Daten und Prozesse aus der Hand zu geben. Damit ist es möglich, die Bereitstellung von komplexen IT-Services und Workflows (Infrastructure-as-a-Service / IaaS, Platform-as-a-Service / PaaS und Anything-as-a-Service / XaaS) zu vereinfachen und zu beschleunigen. Das Buch soll Kunden bei einer derartigen Implementierung unterstützen. Nach einer Einführung und Klärung der wichtigsten Begriffe aus der Welt der Virtualisierung und des Cloud-Management wird vRealize Automation

konzeptionell vorgestellt. Anschließend werden mögliche
Implementierungsdesigns für Umgebungen jeder Größenordnung besprochen
und es wird Schritt für Schritt aufgezeigt, wie Sie vRealize Automation für Ihren
Einsatz konfigurieren. Ebenso wird auf Aspekte eingegangen, wie komplexe
Infrastrukturen inklusive der benötigten Netzwerke angelegt werden können,
sowie auf Fragen der Erweiterbarkeit und Anpassbarkeit. Ein Kapitel über das
Finanzmanagement-Tool vRealize Business rundet das Buch ab.
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 6.7s 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.

If you are a VMware administrator who is interested in automating your infrastructure, this book is for you. An understanding of basic programming concepts is advised. No previous knowledge of Orchestrator is required, although some previous knowledge of it will allow you to get started more easily.

Improve Manageability, Flexibility, Scalability, and Control with Hyperconverged Infrastructure Hyperconverged infrastructure (HCI) combines storage, compute, and networking in one

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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.

Your One-Stop Reference for VMware vSphere Automation If you manage vSphere in a Windows environment, automatingroutine tasks can save you time and increase efficiency. VMwarevSphere PowerCLI is a set of pre-built commands based on WindowsPowerShell that is designed to help you automate vSphere processesinvolving virtual machines, datacenters, storage, networks, andmore. This detailed guide—using a practical, task-basedapproach and real-world examples—shows you how to get themost out of PowerCLI's handy cmdlets. Learn how to: Automate vCenter Server and ESX/ESX(i) Server deployment andconfiguration Create and configure virtual machines and use vApps Secure, back up, and restore your virtual machines Monitor, audit, and report the status of your vSphereenvironment Use the PowerCLI SDK, PowerWF Studio, and vEcoShell Schedule and view automation Add a GUI front end to your scripts

Successfully meeting the challenges of combining VMware and Oracle, this comprehensive reference provides a broad spectrum of technological recommendations that demonstrate how to reliably and consistently achieve optimal configuration and maximum performance for any virtualized Oracle database scenario. The guide includes the best practices for virtualized

servers, suggested virtualization server configuration, and recommendations for client operating system configuration for Oracle in a virtualized world. With real-world examples and highly applicable advice, this handbook also details the complexities of designing, configuring, maintaining, and tuning Oracle database deployments, making it a complete compendium for keeping virtualized Oracle databases in top form.

Enhance your virtualization skills by mastering storage and network virtualization with automation across different Clouds Key Features Migrate and build your applications in Hybrid Cloud with VMware Cross Cloud components and services Gain in-depth configuration insights of VMware Cross Cloud architecture Learn to migrate applications from VMware to AWS and IBM Cloud Book Description Over the past two decades, VMware vSphere has been known as the most trusted and reliable virtualization platform. VMware Cross-Cloud Architecture shows you how to design and configure Cross Cloud Architecture by using VMware Cloud Foundation and vRealize Suite with various use cases across private, public, and hybrid Cloud. This book takes you through everything from a basic understanding of virtualization to advanced aspects of storage and network virtualization, clustering, automation, and management. This book will be your guide to designing all aspects of Cloud. We start with the challenges faced by a traditional data center, define problem statements for you, and then brief you on respective solutions. Moving on, all kinds of virtualization and Cloud offerings from AWS and IBM Soft Layer are introduced and discussed in detail. Then, you'll learn how to design IT infrastructures for new and existing applications with a combination of Cloud Foundation, vRealize Suite, and vSphere enabled with VSAN and NSX. Furthermore, you'll learn how to design and configure high availability, disaster recovery, and apply an appropriate compliance matrix. Toward the

end of the book, you will learn how to calculate the TCO/ROI, along with the VMware products packaging and licensing in detail. What you will learn Install and configure the Cloud foundation with Cross-Cloud services Configure vSphere high availability with the vCenter redundancy setup Architect and configure VMware with AWS Cloud Deploy VMware components in IBM Soft Layer Extend your DR setup with VMware to consume DRaaS Design and configure software-defined networking Implement compliance regulations to fix violations Who this book is for This book is for administrators, Cloud architects and network engineers who want to globalize their infrastructure using VMware and AWS services. An initial setup of workloads and data center is beneficial.

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. 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.

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. Micro-segmentation - Day 1 brings together the knowledge and guidance for planning, designing, and implementing a modern security architecture for the software-defined data center based on micro-segmentation. VMware NSX makes network micro-segmentation feasible for the first time. It enables granular firewalling and security policy enforcement for every workload in the data center, independent of the network topology and complexity. Micro-segmentation with NSX already helped over a thousand organizations improve the security posture of their software-defined data center by fundamentally changing the way they

approach security architecture. Micro-segmentation - Day 1 is your roadmap to simplify and enhance security within software-defined data centers running NSX. You will find insights and recommendations proven in the field for moving your organization from a perimeter-centric security posture to a micro-segmented architecture that provides enhanced security and visibility within your data center.

- This is the latest practice test to pass the 3V0-732 VMware Certified Advanced Professional 7 - Cloud Management and Automation Design Exam. - It contains 56 Questions and Answers. - All the questions are 100% valid and stable. - You can reply on this practice test to pass the exam with a good mark and in the first attempt.

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.

Three speakers at the Second Workshop on Network Management and Control nostalgically remembered the INTEROP Conference at which SNMP was able to interface even to CD players and toasters. We agreed this was indeed a major step forward in standards, but wondered if anyone noticed whether the toast was burned, let alone, would want to eat it. The assurance of the correct operation of practical systems under difficult environments emerged as the dominant theme of the workshop with growth, interoperability, performance, and scalability as the primary sub-themes. Perhaps this thrust is un surprising, since about half the 100 or so attendees were from industry, with a strong contingency of users. Indeed the technical program co-chairs, Shivendra Panwar of Polytechnic and Walter Johnston of NYNEX, took as their assignment the coverage of real problems and opportunities in industry. Nevertheless we take it as a real indication of progress in the field that the community is beginning to take for granted the availability of standards and even the ability to detect physical, link, and network-level faults and is now expecting diagnostics at higher levels as well as system-wide solutions.

- This is the latest practice test to pass the 1V0-701 VMware Certified Associate - Digital Business Transformation (VCA-DBT) Exam. - It contains 90 Questions and Answers. - All the questions are 100% valid and stable. - You can reply on this practice test to pass the exam with a good mark and in the first attempt. 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. Know the basics of network security services and other stateful services such as NAT, gateway and distributed firewalls (L2-L7), virtual private networks (VPN), load balancing (LB), and IP address management. This book covers these network and security services and how NSX-T also offers integration and interoperability with various other products that are not only created by VMware, but are also referred by VMware as third-party integrated vendors. With the integration of VMware vRealize Automation, you can automate full application platforms consisting of multiple virtual machines with network and security services orchestrated and fully automated. From the operational perspective, this book provides best practices on how to configure logging, notification, and monitoring features and teaches you how to get the required visibility of not only your NSX-T platform but also your NSX-T-enabled network infrastructure. Another key part of this book is the explanation of multi-site capabilities and how network and security services can be offered across multiple on-premises locations with a single management pane. Interface with public cloud services also is included. The current position of NSX-T operation in on-premises private

clouds and the position and integration with off-premises public clouds are covered as well. This book provides a good understanding of integrations with other software to bring the best out of NSX-T and offer even more features and capabilities. What You Will Learn Understand the NSX-T security firewall and advanced security Become familiar with NAT, DNS, DHCP, and load balancing features Monitor your NSX-T environment Be aware of NSX-T authentication and authorization possibilities Understand integration with cloud automation platforms Know what multi-cloud integrations are possible and how to integrate NSX-T with the public cloud Who This Book Is For Virtualization administrators, system integrators

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