This book is a step-by-step guide packed with recipes that cover architecture design and planning. The book is also full of deployment tips, techniques, and solutions. If you are a solutions architect, technical consultant, administrator, or any other virtualization enthusiast who needs to use Microsoft System Center Virtual Machine Manager in a real-world environment, then this is the book for you. We assume that you have previous experience with Windows 2012 R2 and Hyper-V. This is an easy-to-follow guide that will help you learn everything you need to know to administer backup, replication, and recovery in your VMware vSphere environment, with Veeam Backup and Replication. This book is aimed at VMware vSphere administrators looking to protect their infrastructure by utilizing the world's leading modern data protection solution, specifically designed for virtual environments. A good understanding of VMware vSphere architecture is recommended, but prior knowledge of Veeam Backup and Replication is not required.

"VMware ESXi 5.1" is written in a Cookbook style, learn through practical real world recipes and examples."VMware ESXi 5.1 Cookbook" is written for technical professionals with system administration skills and foundation knowledge of virtualization and who need to learn about the installation, configuration, and administration of vSphere 5.1. Essential virtualization

and ESX or ESXi knowledge is advantageous. Learn how to secure your Java applications from hackers using Spring Security 4.2 About This Book Architect solutions that leverage the full power of Spring Security while remaining loosely coupled. Implement various scenarios such as supporting existing user stores, user sign up, authentication, and supporting AJAX requests, Integrate with popular Microservice and Cloud services such as Zookeeper, Eureka, and Consul, along with advanced techniques, including OAuth, JSON Web Token's (JWS), Hashing, and encryption algorithms Who This Book Is For This book is intended for Java Web and/or RESTful webservice developers and assumes a basic understanding of creating Java 8, Java Web and/or RESTful webservice applications, XML, and the Spring Framework. You are not expected to have any previous experience with Spring Security. What You Will Learn Understand common security vulnerabilities and how to resolve them Learn to perform initial penetration testing to uncover common security vulnerabilities Implement authentication and authorization Learn to utilize existing corporate infrastructure such as LDAP, Active Directory, Kerberos, CAS, OpenID, and OAuth Integrate with popular frameworks such as Spring, Spring-Boot, Spring-Data, JSF, Vaaden, iQuery, and AngularJS. Gain deep understanding of the security challenges with RESTful webservices and microservice architectures Integrate Spring with other security infrastructure components like LDAP, Apache Directory server and SAML In Detail Knowing that experienced hackers are itching to test your skills makes security one of the most difficult and

high-pressured concerns of creating an application. The complexity of properly securing an application is compounded when you must also integrate this factor with existing code, new technologies, and other frameworks. Use this book to easily secure your Java application with the tried and trusted Spring Security framework, a powerful and highly customizable authentication and access-control framework. The book starts by integrating a variety of authentication mechanisms. It then demonstrates how to properly restrict access to your application. It also covers tips on integrating with some of the more popular web frameworks. An example of how Spring Security defends against session fixation, moves into concurrency control. and how you can utilize session management for administrative functions is also included. It concludes with advanced security scenarios for RESTful webservices and microservices, detailing the issues surrounding stateless authentication, and demonstrates a concise, step-by-step approach to solving those issues. And, by the end of the book, readers can rest assured that integrating version 4.2 of Spring Security will be a seamless endeavor from start to finish. Style and approach This practical step-by-step tutorial has plenty of example code coupled with the necessary screenshots and clear narration so that grasping content is made easier and quicker.

Your one-stop guide for building, configuring, maintaining, and deploying one of the world's fastest growing OSes About This Book Understand the features of CoreOS and learn to administrate and secure a

CoreOS environment Develop, test, and deploy cloud services and applications more quickly and efficiently inside lightweight containers using CoreOS This is a complete tutorial on CoreOS, which is the preferred OS for cloud computing as it contains components that facilitate cloud management Who This Book Is For This book is for cloud or enterprise administrators and application developers who would like to gain knowledge about CoreOS to deploy a cloud application or microservices on a cluster of cloud servers. It is also aimed at administrators with basic networking experience. You do not need to have any knowledge of CoreOS. What You Will Learn Understand the benefits of CoreOS as a cloud orchestration platform Learn about lightweight containers and various container frameworks such as Docker and RKT in CoreOS Manage services and containers across cluster using Fleet and systemd Set up a CoreOS environment using Vagrant Create and manage CoreOS clusters Discover the service parameters using etcd Find out about chaining services running on the cluster using Flannel / Rudder and Weave Create a virtual tenant network and service chaining using OVS In Detail CoreOS is an open source operating system developed upon the Linux kernel. The rise of CoreOS is directly related to the rise of Docker (a Linux container management system). It is a minimal operating system layer and takes a different approach to automating the deployment of containers. The major difference between CoreOS and other Linux distributions is that CoreOS was designed to deploy hundreds of servers. CoreOS immensely helps the users to create systems, which are

easy to scale and manage, making life easier for all, be it developer, QA, or deployer. This book is all about setting up, deploying, and using CoreOS to manage clusters and clouds. It will help you understand what CoreOS is and its benefits as a cloud orchestration platform. First, we'll show you how to set up a simple CoreOS instance with single node in the cluster and how to run a Docker container inside the CoreOS instance. Next, you'll be introduced to Fleet and systemd, and will deploy and distribute Docker services across different nodes in cluster using Fleet. Later, you'll be briefed about running services in a cluster with constraints, publishing the services already running on the cluster to new services, and making your services interact with each other. We conclude by teaching you about advanced container networking. By the end of the book, you will know the salient features of CoreOS and will be able to deploy, administrate, and secure a CoreOS environment. Style and approach This practical guide covers the basics and advanced topics related to CoreOS and lightweight containers. The topics are covered in an easy-to-follow manner with each feature explained in detail, beginning with a brief overview and followed by an explanation of its corresponding configuration files.

Remain highly competitive in the server and VM market by gaining the practical skills needed to operate Nano Server About This Book The days of the local server are numbered, and this book will make you an ace by giving you the skills needed to administer Nano Server and survive in the brave new server world Learn to quickly automate multiple VMs and support Hyper-V clusters, all

through small footprints from a single host Apply up-todate, real-world examples presented in this book and improve the scalability and efficiency of large-scale VM deployments Who This Book Is For This book opens up new potential for both developers and IT pros alike. The book is primarily for Server administrators and IT Professionals who would like to deploy and administer Nano Server within their organizations, and for developers who are trying to make maximal use of Server Containers and Hyper-V Containers with Nano Servers. What You Will Learn Understand Nano Server Deploy Nano Server Deploy Hyper-V Clusters on Nano Server Deploy Nano Server with SCVMM Manage Nano Server using PowerShell and Remote Server Management Tools Manage Nano Server with third-party tools Run Server Containers and Hyper-V Containers on Nano Server Troubleshoot Nano Server Validate developed applications that run on Nano Server In Detail Nano Server allows developers and operations teams to work closely together and use containers that package applications so that the entire platform works as one. The aim of Nano Server is to help applications run the way they are intended to. It can be used to run and deploy infrastructures (acting as a compute host, storage host, container, or VM quest operating system) without consuming significant resources. Although Nano Server isn't intended to replace Server 2016 or 2012 R2, it will be an attractive choice for developers and IT teams. Want to improve your ability to deploy a new VM and install and deploy container apps within minutes? You have come to the right place! The objective of this book

is to get you started with Nano Server successfully. The journey is quite exciting, since we are introducing you to a cutting-edge technology that will revolutionize today's datacenters. We'll cover everything from the basic to advanced topics. You'll discover a lot of added value from using Nano Server, such as hundreds of VM types on a single host through a small footprint, which could be a big plus for you and your company. After reading this book, you will have the necessary skills to start your journey effectively using Nano Server. Style and approach Gauge all the information needed to get upand-running with the latest Nano Server built by Microsoft using this easy to follow step-by-step guide. Over 80 recipes to help you improve vSphere 6.5's performance and solve problems before they arise About This Book The practical recipes provide cost-effective and high performance for any application running in a virtual machine Contains best practices and troubleshooting techniques to resolve vSphere 6.5 performance issues Get a comprehensive coverage of performance issues and solutions including vCenter Server design and virtual machine and application tuning Who This Book Is For If you are a system administrator and are planning to deploy vSphere 6.5 in your organization and want to maximize its performance, then this book is for you. Prior knowledge of the vSphere 6.5 concepts is essential. What You Will Learn Understand the VMM Scheduler, cache aware CPU Scheduler, NUMA aware CPU Scheduler, and more during the CPU Performance Design phase Get to know the virtual memory reclamation technique, host ballooning

monitoring, and swapping activity Choose the right platform while designing your vCenter Server, redundant vCenter design, and vCenter SSO and its deployment Learn how to use various performance simulation tools Design VCSA Server Certificates to minimize security threats Use health check tools for storage and boost vSphere 6.5's performance with VAAI and VASA In Detail vSphere is a mission-critical piece of software for many businesses. It is a complex tool, and incorrect design and deployment can create performance related issues that can negatively affect the business. This book is focused on solving these problems as well as providing best practices and performance-enhancing techniques. This edition is fully updated to include all the new features in version 6.5 as well as the latest tools and techniques to keep vSphere performing at its best. This book starts with interesting recipes, such as the interaction of vSphere 6.5 components with physical layers such as CPU, memory, and networking. Then we focus on DRS, resource control design, and vSphere cluster design. Next, you'll learn about storage performance design and how it works with VMware vSphere 6.5. Moving on, you will learn about the two types of vCenter installation and the benefits of each. Lastly, the book covers performance tools that help you get the most out of your vSphere installation. By the end of this book, you will be able to identify, diagnose, and troubleshoot operational faults and critical performance issues in vSphere 6.5. Style and approach This cookbook is written in a practical, helpful style with numerous recipes focusing on answering and providing

solutions to common and not-so-common performance issues and problems.

Save time and resources by getting to know the best practices and intelligence from industry experts About This Book This book helps you gain a fresh perspective through a recipe-based approach on the new Microsoft Server 2016 Hyper-V Over 80 recipes to help you master the administrative tasks of Hyper-V and get to grips with advanced solutions and techniques for virtualization These hands-on advanced recipes will help you deploy, maintain, and upgrade Hyper-V virtual machines Who This Book Is For This book is for Hyper-V administrators who are looking to take advantage of all exciting new features that Microsoft Server 2016 Hyper-V has to offer. What You Will Learn Install and manage Hyper-V in Full, Server Core, and Nano Server Get to know how to migrate and upgrade physical and virtual machines Configure disks, network, memory, security, and auditing settings for virtual machines Take a deep dive into high availability and disaster recovery Save time and money by getting to grips with PowerShell automation Understand the new features around network and nested virtualization, distributed storage QoS, Hyper-V Replica, and much more Gain a full view of your virtual machines and host servers through monitoring, reporting, and troubleshooting tips In Detail Hyper-V is a Windowsbased, very cost-effective virtualization solution with easy-to-use and well-known administrative consoles. With this book on your side you will master the worlds of Hyper-V deployment, migration, and management by learning tips, tricks, and best practices, especially when

it comes to advanced-level tasks. You will learn how to quickly deploy and automate multiple VMs, and support Hyper-V clusters through different installation methods. You will learn the concepts efficiently with the help of upto-date real-world examples and improve the scalability and efficiency of large-scale VM deployments with Nano Server. By the end of this book, you will be an ace Windows Server 2016 Hyper-V with the skills needed to administer and manage it effectively and survive in the brave new world of mobile-first, cloud-first. Further, take advantage of bonus appendix explaining Hyper-V and backup architecture and the difference between versions. Style and approach This advanced-level book provides step-by-step recipes on real-world examples so you can get practical, hands-on experience of the subjects.

Provides information on working with VMware ESXi in a variety of network environments, covering such topics as storage, networking, security, and vCloud.

Real-world examples of cross-browser, mobile, and data-driven testing with all the latest features of Selenium WebDriver 3 Key Features Unlock the full potential of Selenium to test your web applications Use Selenium Grid for faster, parallel running, and cross-browser testing Test iOS and Android Apps with Appium Book Description Selenium WebDriver is an open source automation tool implemented through a browser-specific driver, which sends commands to a browser and retrieves results. The latest version of Selenium 3 brings with it a lot of new features that change the way you use and setup Selenium WebDriver. This book covers all those features along with the source code, including a demo website that allows you to work with an

HMTL5 application and other examples throughout the book. Selenium WebDriver 3 Practical Guide will walk you through the various APIs of Selenium WebDriver, which are used in automation tests, followed by a discussion of the various WebDriver implementations available. You will learn to strategize and handle rich web UI using advanced WebDriver API along with real-time challenges faced in WebDriver and solutions to handle them. You will discover different types and domains of testing such as cross-browser testing, load testing, and mobile testing with Selenium. Finally, you will also be introduced to data-driven testing using TestNG to create your own automation framework. By the end of this book, you will be able to select any web application and automate it the way you want. What you will learn Understand what Selenium 3 is and how is has been improved than its predecessor Use different mobile and desktop browser platforms with Selenium 3 Perform advanced actions, such as drag-and-drop and action builders on web page Learn to use Java 8 API and Selenium 3 together Explore remote WebDriver and discover how to use it Perform cross browser and distributed testing with Selenium Grid Use Actions API for performing various keyboard and mouse actions Who this book is for Selenium WebDriver 3 Practical Guide is for software quality assurance/testing professionals, software project managers, or software developers interested in using Selenium for testing their applications. Prior programming experience in Java is necessary.

With the proliferation of mobile devices and bring-your-own-devices (BYOD) within enterprise networks, the boundaries of where the network begins and ends have been blurred. Cisco Identity Services Engine (ISE) is the leading security policy management platform that unifies and automates access control to proactively enforce role-based access to enterprise networks. In Practical Deployment of Cisco Identity Services

Engine (ISE), Andy Richter and Jeremy Wood share their expertise from dozens of real-world implementations of ISE and the methods they have used for optimizing ISE in a wide range of environments. ISE can be difficult, requiring a team of security and network professionals, with the knowledge of many different specialties. Practical Deployment of Cisco Identity Services Engine (ISE) shows you how to deploy ISE with the necessary integration across multiple different technologies required to make ISE work like a system. Andy Richter and Jeremy Wood explain end-to-end how to make the system work in the real world, giving you the benefit of their ISE expertise, as well as all the required ancillary technologies and configurations to make ISE work. 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.

This is a step-by-step guide, full of hands-on examples of real-world deployment tasks. Each topic is explained and placed in context, while also pointing out the key details of the concepts used. This book is aimed at system administrators and system engineers who have an understanding of configuration management tools and infrastructure. For novice administrators, it contains easy-to-use application recipes to get started immediately.

Identify and resolve key Citrix XenApp® issues using trusted troubleshooting and monitoring techniques About This Book Understand the key troubleshooting methodologies when working with XenApp 7.5 version and above Uncover effective tips and techniques to solve real-world XenApp® infrastructure problems This is a fast-paced guide to developing key troubleshooting and problem resolution skills you can put to use in a Citrix environment Who This Book Is For This book is for Citrix Administrators or Citrix Engineers who are currently managing Citrix XenApp® in a production environment and want to learn how to troubleshoot XenApp® issues in the shortest possible time. It is assumed that you have a basic understanding of XenApp® infrastructure.

What You Will Learn Get to know about troubleshooting methodologies and perform a root cause analysis of the problem Understand the individual components and interactions required for a successful XenApp environments Identify and troubleshoot issues around the core Citrix components Identify XenApp® components and their roles and learn how they interact with the communication channels Gain tips and tricks to optimize Citrix deployments Monitor and optimize the XenApp® environment In Detail Citrix XenApp® is an application virtualization product from Citrix. It allows users to connect to their corporate applications from various computer systems and even mobile devices. XenApp® has grown into a complex software with everexpanding infrastructures in place. Together with tight integrations with other systems such as Terminal Services, Active Directory, and other third-party authentication services, troubleshooting XenApp® has become more complicated. This book teaches you how to approach troubleshooting complex issues with XenApp® deployments and understand the problem, find a fix or workaround, determine the root cause, and apply corrective steps wherever applicable. The book progresses to give you an idea about the many supportive components that play an important role in XenApp's application delivery model and should be considered while troubleshooting XenApp® issues. It also shows you standard troubleshooting processes so that you can resolve complex XenApp® issues in a mission critical environment. By the end of this book, you will see how and where to use supportive components that help minimize XenApp® issues. Also, we'll explain various tools that can be useful when monitoring and optimizing entire application and desktop delivery model. Style and approach This is an easyto-follow, fast-paced, example-oriented guide with a brief explanation on various troubleshooting methodologies to walk $\frac{Page}{Page}$

you through a host of real-life problems.

Over 110 effective recipes to help you build and operate OpenStack cloud computing, storage, networking, and automation About This Book Explore many new features of OpenStack's Juno and Kilo releases Install, configure, and administer core projects with the help of OpenStack Object Storage, Block Storage, and Neutron Networking services Harness the abilities of experienced OpenStack administrators and architects, and run your own private cloud successfully Practical, real-world examples of each service and an accompanying Vagrant environment that helps you learn quickly In Detail OpenStack Open Source software is one of the most used cloud infrastructures to support software development and big data analysis. It is developed by a thriving community of individual developers from around the globe and backed by most of the leading players in the cloud space today. It is simple to implement, massively scalable, and can store a large pool of data and networking resources. OpenStack has a strong ecosystem that helps you provision your cloud storage needs. Add OpenStack's enterprise features to reduce the cost of your business. This book will show you the steps to build up a private cloud environment. At the beginning, you'll discover the uses of cloud services such as the identity service, image service, and compute service. You'll dive into Neutron, the OpenStack Networking service, and get your hands dirty with configuring ML2, networks, routers, and Distributed Virtual Routers. You'll then gather more expert knowledge on OpenStack cloud computing by managing your cloud's security and migration. After that, we delve in to OpenStack Object storage and how to manage servers and work with objects, cluster, and storage functionalities. Also, as you go deeper into the realm of OpenStack, you'll learn practical examples of Block storage, LBaaS, and FWaaS: installation and configuration

covered ground up. Finally, you will learn OpenStack dashboard, Ansible and Foreman, Keystone, and other interesting topics. What You Will Learn Understand, install, configure, and manage Nova—the OpenStack Cloud Compute resource Configure ML2, networks, routers, and Distributed Virtual Routers with Neutron Use and secure Keystone, the OpenStack Authentication service Install and set up Swift and Container Replication between datacenters Gain hands-on experience and familiarity with Horizon, the OpenStack Dashboard user interface Automate complete solutions with our recipes on Heat, the OpenStack Orchestration service Use Ansible and Foreman to automate OpenStack installations successfully Follow practical advice and examples to run OpenStack in production Who This Book Is For This book is aimed at cloud system engineers, system administrators, and technical architects who are moving from a virtualized environment to cloud environments. This book assumes that you are familiar with cloud computing platforms, and have knowledge of virtualization, networking, and managing Linux environments. Style and approach Clear, step-by-step instructions coupled with practical and applicable recipes that'll enable you to use and implement the latest features of OpenStack.

If you want to gain insight into the real-world uses of VMware ESX and ESXi, this book provides scores of step-by-step solutions for working with these products in a wide range of network environments. You'll not only learn the basics -- how to pool resources from hardware servers, computer clusters, networks, and storage, and then distribute them among virtual machines -- but also the stumbling blocks you'll encounter when you monitor systems, troubleshoot problems, and deal with security.

Learn to use some of the most exciting and powerful

tools to deliver world-class quality software with continuous delivery and DevOps About This Book Get to know the background of DevOps so you understand the collaboration between different aspects of an IT organization and a software developer Deploy top-quality software and ensure software maintenance and release management with this practical guide This course covers some of the most exciting technology available to DevOps engineers, and demonstrates multiple techniques for using them Real-world and realistic examples are provided to help you as you go about the implementation and adoption of continuous delivery and DevOps Who This Book Is For This course is for developers who want to understand how the infrastructure that builds today's enterprises works, and how to painlessly and regularly ship quality software. What You Will Learn Set up and familiarize yourself with all the tools you need to be efficient with DevOps Design an application that is suitable for continuous deployment systems with DevOps in mind Test the code using automated regression testing with Jenkins Selenium Managing the lifecycle of hosts, from creation to ongoing management using Puppet Razor Find out how to manage, use, and work with Code in the Git version management system See what traps, pitfalls, and hurdles to look out for as you implement continuous delivery and DevOps In Detail Harness the power of DevOps to boost your skill set and make your IT organization perform better. If you're keen to employ DevOps techniques to better your software development, this course contains all you need to overcome the day-to-

day complications of managing complex infrastructures the DevOps way. Start with your first module - Practical DevOps - that encompasses the entire flow from code from testing to production. Get a solid ground-level knowledge of how to monitor code for any anomalies, perform code testing, and make sure the code is running smoothly through a series of real-world exercise, and develop practical skills by creating a sample enterprise Java application. In the second module, run through a series of tailored mini-tutorials designed to give you a complete understanding of every DevOps automation technique. Create real change in the way you deliver your projects by utilizing some of the most commendable software available today. Go from your first steps of managing code in Git to configuration management in Puppet, monitoring using Sensu, and more. In the final module, get to grips with the continuous delivery techniques that will help you reduce the time and effort that goes into the delivery and support of software. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Practical DevOps by Joakim Verona DevOps Automation Cookbook by Michael Duffy Continuous Delivery and DevOps: A Quickstart Guide - Second Edition by Paul Swartout Style and approach This course is an easy to follow project based guide for all those with a keen interest in deploying world-class software using some of the most effective and remarkable technologies available.

A comprehensive, practical guide to accessing virtual

desktops, applications, and services through a unified platform About This Book This is the first book on the market that delivers desktops and applications through a single Virtual Desktop Infrastructure platform Reduce enterprise costs by dynamically allocating resources with virtual storage, compute and networking This comprehensive guide provides simplified operations, improved security, and accelerated time-to-value using VMware Horizon 7 Who This Book Is For If you are a newcomer to system administration, and you wish to implement the Horizon environment, then this book is for you. Prior knowledge of Horizon is beneficial. What You Will Learn Walk through the configuration of VMware Horizon, including the new Horizon Access Point appliance Implement a multi-site VMware Horizon pod using the Cloud Pod Architecture feature Understand the integration between VMware Horizon and VSAN, and see how they are deployed together Explore how to implement and maintain Microsoft RDS and Linux and Windows Desktop Pools Create and optimize desktop master images. Understand how to manage the SSL certificates for each of the VMware Horizon components. In Detail VMware Horizon 7 has been a buzz since it was announced. One of the major reasons is the introduction of the new Instant Clones feature. This book will complement the product documentation by providing reallife examples of how it is implemented along with the latest features and components of the platform. We'll explore the latest features of the platform, including those added through product acquisitions such as User Environment Manager and App Volumes. Further on.

you will also be introduced to the new capabilities added to the core product such Linked-Clone RDS pools. Upon completion of this book, you will have an understanding of the capabilities and benefits VMware Horizon can provide to your organization, and how each of its components are implemented. Style and approach This comprehensive guide focuses on the practicality of VMware Horizon and how you can implement it in your organization.

Leverage the power of deep learning and Keras to develop smarter and more efficient data models Key Features Understand different neural networks and their implementation using Keras Explore recipes for training and fine-tuning your neural network models Put your deep learning knowledge to practice with real-world usecases, tips, and tricks Book Description Keras has quickly emerged as a popular deep learning library. Written in Python, it allows you to train convolutional as well as recurrent neural networks with speed and accuracy. The Keras Deep Learning Cookbook shows you how to tackle different problems encountered while training efficient deep learning models, with the help of the popular Keras library. Starting with installing and setting up Keras, the book demonstrates how you can perform deep learning with Keras in the TensorFlow. From loading data to fitting and evaluating your model for

optimal performance, you will work through a step-bystep process to tackle every possible problem faced while training deep models. You will implement convolutional and recurrent neural networks, adversarial networks, and more with the help of this handy guide. In addition to this, you will learn how to train these models for real-world image and language processing tasks. By the end of this book, you will have a practical, hands-on understanding of how you can leverage the power of Python and Keras to perform effective deep learning What you will learn Install and configure Keras in TensorFlow Master neural network programming using the Keras library Understand the different Keras layers Use Keras to implement simple feed-forward neural networks, CNNs and RNNs Work with various datasets and models used for image and text classification Develop text summarization and reinforcement learning models using Keras Who this book is for Keras Deep Learning Cookbook is for you if you are a data scientist or machine learning expert who wants to find practical solutions to common problems encountered while training deep learning models. A basic understanding of Python and some experience in machine learning and neural networks is required for this book. This is a Packt Cookbook, full with over 75 recipes for VMM users to carry out vital tasks quickly and easily. This book is written for solutions architects, technical consultants, administrators, and any other virtualization lover who needs to use Microsoft System Center Virtual Machine Manager in a real world environment. Virtualizing and Tuning Large-Scale Java Platforms

Technical best practices and real-world tips for optimizing enterprise Java applications on VMware vSphere® Enterprises no longer ask, "Can Java be virtualized"? Today, they ask, "Just how large can we scale virtualized Java application platforms, and just how efficiently can we tune them?" Now, the leading expert on Java virtualization answers these questions, offering detailed technical information you can apply in any production or QA/test environment. Emad Benjamin has spent nine years virtualizing VMware's own enterprise Java applications and working with nearly 300 leading VMware customers on projects of all types and sizes—from 100 JVMs to 10,000+, with heaps from 1GB to 360GB, and including massive big-data applications built on clustered JVMs. Reflecting all this experience, he shows you how to successfully size and tune any Java workload. This reference and performance "cookbook" identifies high-value optimization opportunities that apply to physical environments, virtual environments, or both. You learn how to rationalize and scale existing Java infrastructure, modernize architecture for new applications, and systematically benchmark and improve every aspect of virtualized Java performance. Throughout, Benjamin offers real performance studies, specific advice, and "from-the-trenches" insights into monitoring and troubleshooting. Coverage includes --Performance issues associated with large-scale Java platforms, including consolidation, elasticity, and flexibility -- Technical considerations arising from theoretical and practical limits of Java platforms --Building horizontal in-memory databases with VMware

vFabric SQLFire to improve scalability and response times -- Tuning large-scale Java using throughput/parallel GC and Concurrent Mark and Sweep (CMS) techniques --Designing and sizing a new virtualized Java environment -- Designing and sizing new large-scale Java platforms when migrating from physical to virtualized deployments -- Designing and sizing largescale Java platforms for latency-sensitive in-memory databases -- Real-world performance studies: SQLFire vs. RDBMS, Spring-based Java web apps, vFabric SpringTrader, application tiers, data tiers, and more --Performance differences between ESXi3, 4.1, and 5 --Best-practice considerations for each type of workload: architecture, performance, design, sizing, and high availability --Identifying bottlenecks in the load balancer, web server, Java application server, or DB Server tiers --Advanced vSphere Java performance troubleshooting with esxtop -- Performance FAQs: answers to specific questions enterprise customers have asked ??????Java???57?????????????10?.??????????? ??????????????C????????????????????

Save time and resources by getting to know the best practices and intelligence from industry expertsAbout This Book* This book helps you gain a fresh perspective through a recipe-based approach on the new Microsoft Server 2016 Hyper-V* Over 80 recipes to help you master the administrative tasks of Hyper-V and get to grips with advanced solutions and techniques for virtualization* These hands-on advanced recipes will help you deploy, maintain, and

upgrade Hyper-V virtual machinesWho This Book Is For This book is for Hyper-V administrators who are looking to take advantage of all exciting new features that Microsoft Server 2016 Hyper-V has to offer. What you will learn* Install and manage Hyper-V in Full, Server Core, and Nano Server* Get to know how to migrate and upgrade physical and virtual machines* Configure disks, network, memory, security, and auditing settings for virtual machines* Take a deep dive into high availability and disaster recovery* Save time and money by getting to grips with PowerShell automation* Understand the new features around network and nested virtualization. distributed storage QoS, Hyper-V Replica, and much more* Gain a full view of your virtual machines and host servers through monitoring, reporting, and troubleshooting tips* Take advantage of a bonus appendix that explains Hyper-V and backup architecture and the difference between versions of Hyper-VIn DetailHyper-V is a Windows-based, very cost-effective virtualization solution with easy-to-use and well-known administrative consoles. You will master Hyper-V deployment, migration, and management by learning tips, tricks, and best practices, especially when it comes to advancedlevel tasks. You will learn how to quickly deploy and automate multiple VMs, and support Hyper-V clusters through different installation methods. You will learn the concepts efficiently with the help of up-Page 24/42

to-date real-world examples and improve the scalability and efficiency of large-scale VM deployments with Nano Server.By the end of this book, you will be an ace Windows Server 2016 Hyper-V with the skills needed to administer and manage it effectively and survive in the brave new world of mobile-first, cloud-first. Further, take advantage of bonus appendix explaining Hyper-V and backup architecture and the difference between versions.

Over 60 recipes for the administration and management of Microsoft System Center Virtual Machine Manager 2012 SP1 Overview Create, deploy, and manage Datacentres, Private and Hybrid Clouds with hybrid hypervisors by using VMM 2012 SP1, App Controller, and Operations Manager. Integrate and manage fabric (compute, storages, gateways, networking) services and resources. Deploy Clusters from bare metal servers. Learn how to use VMM 2012 SP1 features such as Windows 2012 and SQL 2012 support, Network Virtualization, Live Migration, Linux VMs, Resource Throttling, and Availability. In Detail Microsoft System Center 2012 is a comprehensive IT infrastructure, virtualization, and cloud management platform. With System Center 2012, you can more easily and efficiently manage your applications and services across multiple hypervisors as well as across public and private cloud infrastructures to deliver flexible and Page 25/42

cost-effective IT services for your business. This cookbook covers architecture design and planning and is full of deployment tips, techniques, and solutions designed to show users how to improve VMM 2012 in a real world scenario. It will guide you to create, deploy, and manage your own Private Cloud with a mix of Hypervisors: Hyper-V, Vmware ESXi. and Citrix XenServer. It also includes the VMM 2012 SP1 features. This book is a cookbook that covers architecture design, planning and is full of deployment tips, techniques and solutions designed to show users how to improve VMM 2012 in a real world scenario. It will guide you to create, deploy and manage your own Private Cloud with a mix of Hypervisors: Hyper-V, Vmware ESXi and Citrix XenServer. What you will learn from this book How to use VMM Architecture and plan for a real word deployment Utilize Network Virtualization, Gateway integration, Storage integration, Resource Throttling, and Availability options Deploy Operations Manager and integrate with VMM Integrate SC APP Controller with VMM to manage Private and Public Clouds (Azure) Cluster deployment with VMM Bare Metal Create and deploy Virtual Machines from Templates Deploy a highly available VMM Management Server Manage Hyper-V, Vmware, and Citrix from VMM How to upgrade from SCVMM 2008R2 to SCVMM 2012 SP1 Approach This is a Packt Cookbook, full with over 75 recipes for VMM users to carry out vital Page 26/42

tasks quickly and easily. Who this book is written for This book is written for solutions architects, technical consultants, administrators, and any other virtualization lover who needs to use Microsoft System Center Virtual Machine Manager in a real world environment.

Learn how to secure your Java applications from hackers using Spring Security 4.2About This Book* Architect solutions that leverage the full power of Spring Security while remaining loosely coupled.* Implement various scenarios such as supporting existing user stores, user sign up, authentication, and supporting AJAX requests,* Integrate with popular Microservice and Cloud services such as Zookeeper, Eureka, and Consul, along with advanced techniques, including OAuth, JSON Web Token's (JWS), Hashing, and encryption algorithmsWho This Book Is ForThis book is intended for Java Web and/or RESTful webservice developers and assumes a basic understanding of creating Java 8, Java Web and/or RESTful webservice applications, XML, and the Spring Framework. You are not expected to have any previous experience with Spring Security. What You Will Learn* Understand common security vulnerabilities and how to resolve them* Learn to perform initial penetration testing to uncover common security vulnerabilities* Implement authentication and authorization* Learn to utilize Page 27/42

existing corporate infrastructure such as LDAP, Active Directory, Kerberos, CAS, OpenID, and OAuth* Integrate with popular frameworks such as Spring, Spring-Boot, Spring-Data, JSF, Vaaden, ¡Query, and AngularJS.* Gain deep understanding of the security challenges with RESTful webservices and microservice architectures* Integrate Spring with other security infrastructure components like LDAP, Apache Directory server and SAMLIn DetailKnowing that experienced hackers are itching to test your skills makes security one of the most difficult and high-pressured concerns of creating an application. The complexity of properly securing an application is compounded when you must also integrate this factor with existing code, new technologies, and other frameworks. Use this book to easily secure your Java application with the tried and trusted Spring Security framework, a powerful and highly customizable authentication and access-control framework. The book starts by integrating a variety of authentication mechanisms. It then demonstrates how to properly restrict access to your application. It also covers tips on integrating with some of the more popular web frameworks. An example of how Spring Security defends against session fixation, moves into concurrency control, and how you can utilize session management for administrative functions is also included. It concludes with advanced security scenarios for RESTful webservices and Page 28/42

microservices, detailing the issues surrounding stateless authentication, and demonstrates a concise, step-by-step approach to solving those issues. And, by the end of the book, readers can rest assured that integrating version 4.2 of Spring Security will be a seamless endeavor from start to finish. Style and approach This practical step-by-step tutorial has plenty of example code coupled with the necessary screenshots and clear narration so that grasping content is made easier and guicker. 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.

Exciting projects that will teach you how complex data can be exploited to gain maximum insights About This Book Architect a good HBase cluster for a very large distributed system Get to grips with the concepts of performance tuning with HBase A practical guide full of engaging recipes and attractive screenshots to enhance your system's performance Who This Book Is For This book is intended for developers and architects who want to know all about HBase at a hands-on level. This book is also for big data enthusiasts and database developers who have worked with other NoSQL databases and

now want to explore HBase as another futuristic scalable database solution in the big data space. What You Will Learn Configure HBase from a high performance perspective Grab data from various RDBMS/Flat files into the HBASE systems Understand table design and perform CRUD operations Find out how the communication between the client and server happens in HBase Grasp when to use and avoid MapReduce and how to perform various tasks with it Get to know the concepts of scaling with HBase through practical examples Set up Hbase in the Cloud for a small scale environment Integrate HBase with other tools including ElasticSearch In Detail Apache HBase is a nonrelational NoSQL database management system that runs on top of HDFS. It is an open source, disturbed, versioned, column-oriented store and is written in Java to provide random real-time access to big Data. We'll start off by ensuring you have a solid understanding the basics of HBase, followed by giving you a thorough explanation of architecting a HBase cluster as per our project specifications. Next, we will explore the scalable structure of tables and we will be able to communicate with the HBase client. After this, we'll show you the intricacies of MapReduce and the art of performance tuning with HBase. Following this, we'll explain the concepts pertaining to scaling with HBase. Finally, you will get an understanding of how to integrate HBase with Page 30/42

other tools such as ElasticSearch. By the end of this book, you will have learned enough to exploit HBase for boost system performance. Style and approach This book is intended for software quality assurance/testing professionals, software project managers, or software developers with prior experience in using Selenium and Java to test webbased applications. This books also provides examples for C#, Python, and Ruby users. VMware vRealize Automation - Handbook The complete guide to vRealize Automation and how to build your own private cloud. The book helps customers to implement a private cloud solution based on VMware's vRealize automation. After an introduction and discussion of basic cloud concepts, vRealize Automation will be introduced. The book discusses the conceptual design as well as how to implement vRealize Automation. The book will give step-by-step instructions how to configure vRealize Automation. Furthermore, tips from real projects will be given. The book acts as a reference as well as cookbook for customers. With the cloud becoming more and more important, many companies still try to find a strategy to implement their own private cloud. VMware helps companies with vRealize Automation - one of the most important products within VMware Software Defined Datacenter (SDDC) strategy. This book is a complete guide to vRealize Automation and will cover all aspects when Page 31/42

implementing a vRealize Automation solution - from design, to installation, configuration and extensibility. This book is designed to help the reader to gain all necessary vRealize skills and see use cases on real-life projects.

Learn how you can put the features of OpenStack to work in the real world in this comprehensive path About This Book Harness the abilities of experienced OpenStack administrators and architects, and run your own private cloud successfully Learn how to install, configure, and manage all of the OpenStack core projects including topics on Object Storage, Block Storage, and Neutron Networking services such as LBaaS and FWaaS Get better equipped to troubleshoot and solve common problems in performance, availability, and automation that confront production-ready OpenStack environments Who This Book Is For This course is for those who are new to OpenStack who want to learn the cloud networking fundamentals and get started with OpenStack networking. Basic understanding of Linux Operating System, Virtualization, and Networking, and Storage principles will come in handy. What You Will Learn Get an introduction to OpenStack and its components Store and retrieve data and images using storage components, such as Cinder, Swift, and Glance Install and configure Swift, the OpenStack Object Storage service, including configuring Container Replication between

datacenters Gain hands on experience and familiarity with Horizon, the OpenStack Dashboard user interface Learn how to automate OpenStack installations using Ansible and Foreman Follow practical advice and examples for running OpenStack in production Fix common issues with images served through Glance and master the art of troubleshooting Neutron networking In Detail OpenStack is a collection of software projects that work together to provide a cloud fabric. Learning OpenStack Cloud Computing course is an exquisite guide that you will need to build cloud environments proficiently. This course will help you gain a clearer understanding of OpenStack's components and their interaction with each other to build a cloud environment. The first module, Learning OpenStack, starts with a brief look into the need for authentication and authorization, the different aspects of dashboards, cloud computing fabric controllers, along with 'Networking as a Service' and 'Software defined Networking'. Then, you will focus on installing, configuring, and troubleshooting different architectures such as Keystone, Horizon, Nova, Neutron, Cinder, Swift, and Glance. After getting familiar with the fundamentals and application of OpenStack, let's move deeper into the realm of OpenStack. In the second module, OpenStack Cloud Computing Cookbook, preview how to build and operate OpenStack cloud

computing, storage, networking, and automation. Dive into Neutron, the OpenStack Networking service, and get your hands dirty with configuring ML2, networks, routers, and distributed virtual routers. Further, you'll learn practical examples of Block Storage, LBaaS, and FBaaS. The final module, Troubleshooting OpenStack, will help you quickly diagnose, troubleshoot, and correct problems in your OpenStack. We will diagnose and remediate issues in Keystone, Glance, Neutron networking, Nova, Cinder block storage, Swift object storage, and issues caused by Heat orchestration. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Learning OpenStack by Alok Shrivastwa, Sunil Sarat OpenStack Cloud Computing Cookbook - Third Edition by Kevin Jackson, Cody Bunch, Egle Sigler Troubleshooting OpenStack by Tony Campbell Style and approach This course aims to create a smooth learning path that will teach you how to get started with setting up private and public clouds using a free and open source cloud computing platform—OpenStack. Through this comprehensive course, you'll learn OpenStack Cloud computing from scratch to finish and more! Over 120 recipes covering key automation techniques through code management and virtualization offered by modern Infrastructure as a Page 34/42

ServiceAbout This Book- Use some of the powerful tools that have emerged to enable systems administrators and developers to take control and automate the management, monitoring, and creation of complex infrastructures- Covers some of the most exciting technologies available to DevOps engineers, and demonstrates multiple techniques for using them- A hands-on guide filled with clear examples and multiple methodologies to demonstrate the various DevOps tools available Who This Book Is Forlf you are a systems administrator or developer who is keen to employ DevOps techniques to help with the day-to-day complications of managing complex infrastructures, then this book is for you. No prior knowledge of DevOps tools is required. What You Will Learn- Manage, use, and work with code in the Git version management system- Manage the life cycle of hosts, from creation to on-going management, using Puppet Razor- Create hosts automatically using a simple combination of TFTP, DHCP, and pre-seeds- Implement virtual hosts using the ubiquitous VMware ESXi hypervisor- Control configuration using the powerful and popular Ansible configuration management system- Develop powerful, consistent, and portable containers using Docker- Track trends, discover data, and monitor key systems using InfluxDB, syslog, and Sensu-Deal efficiently with powerful cloud infrastructures using the Amazon AWS Infrastructure as a Service Page 35/42

and the Heroku Platform as a Service In DetailThere has been a recent explosion in tools that allow you to redefine the delivery of infrastructure and applications, using a combination of automation and testing to deliver continuous deployment. DevOps has garnered interest from every quarter, and is rapidly being recognized as a radical shift, as large as the Agile movement for the delivery of software. This book takes a collection of some of the coolest software available today and shows you how to use it to create impressive changes to the way you deliver applications and software. It tackles the plethora of tools that are now available to enable organizations to take advantage of the automation. monitoring, and configuration management techniques that define a DevOps-driven infrastructure. Starting off with the fundamental command-line tools that every DevOps enthusiast must know, this book will guide you through the implementation of the Ansible tool to help you facilitate automation and perform diverse tasks. You will explore how to build hosts automatically with the creation of Apt mirrors and interactive pre-seeds, which are of the utmost importance for Ubuntu automation. You will also delve into the concept of virtualization and creating and manipulating guests with ESXi. Following this, you will venture into the application of Docker; learn how to install, run, network, and restore Docker containers; and also Page 36/42

learn how to build containers in Jenkins and deploy apps using a combination of Ansible, Docker, and Jenkins. You will also discover how to filter data with Grafana and the usage of InfluxDB along with unconventional log management. Finally, you will get acquainted with cloud infrastructure, employing the Heroku and Amazon AWS platforms. By tackling realworld issues, this book will guide you through a huge variety of tools, giving new users the ability to get up and running and offering advanced users some interesting recipes that may help with existing issues. Style and approachThis book has an easy-tofollow approach to both introducing the wide range of available DevOps tools and working with them. Each recipe is lavishly sprinkled with example code and uses clear instructions to easily allow you to see how you can both implement the solutions, and more importantly, tailor them to your unique needs. ????9???.?????????????????????????? ?????????????PIX????IOS????VPN????GRE?L 2TP?IPSec??????Cisco??????AAA?TACACS+?RA ?????NBAR????????CAR????????????????? Over 110 effective recipes to help you build and operate OpenStack cloud computing, storage, networking, and automationAbout This Book• Explore many new features of OpenStack's Juno and Kilo releases. Install, configure, and administer core projects with the help of OpenStack Object

Storage, Block Storage, and Neutron Networking services. Harness the abilities of experienced OpenStack administrators and architects, and run your own private cloud successfully. Practical, realworld examples of each service and an accompanying Vagrant environment that helps you learn guickly In DetailOpenStack Open Source software is one of the most used cloud infrastructures to support software development and big data analysis. It is developed by a thriving community of individual developers from around the globe and backed by most of the leading players in the cloud space today. It is simple to implement, massively scalable, and can store a large pool of data and networking resources. OpenStack has a strong ecosystem that helps you provision your cloud storage needs. Add OpenStack's enterprise features to reduce the cost of your business. This book will show you the steps to build up a private cloud environment. At the beginning, you'll discover the uses of cloud services such as the identity service, image service, and compute service. You'll dive into Neutron, the OpenStack Networking service, and get your hands dirty with configuring ML2, networks, routers, and Distributed Virtual Routers. You'll then gather more expert knowledge on OpenStack cloud computing by managing your cloud's security and migration. After that, we delve in to OpenStack Object storage and how to manage

servers and work with objects, cluster, and storage functionalities. Also, as you go deeper into the realm of OpenStack, you'll learn practical examples of Block storage, LBaaS, and FWaaS: installation and configuration covered ground up. Finally, you will learn OpenStack dashboard, Ansible and Foreman, Keystone, and other interesting topics. What You Will Learn• Understand, install, configure, and manage Nova—the OpenStack Cloud Compute resource• Configure ML2, networks, routers, and Distributed Virtual Routers with Neutron Use and secure Keystone, the OpenStack Authentication service• Install and set up Swift and Container Replication between datacenters• Gain hands-on experience and familiarity with Horizon, the OpenStack Dashboard user interface Automate complete solutions with our recipes on Heat, the OpenStack Orchestration service. Use Ansible and Foreman to automate OpenStack installations successfully. Follow practical advice and examples to run OpenStack in productionWho This Book Is ForThis book is aimed at cloud system engineers, system administrators, and technical architects who are moving from a virtualized environment to cloud environments. This book assumes that you are familiar with cloud computing platforms, and have knowledge of virtualization, networking, and managing Linux environments. Style and approachClear, step-by-step instructions coupled Page 39/42

with practical and applicable recipes that'll enable you to use and implement the latest features of OpenStack.

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. Learn how to gather detailed statistics and data with this one-stop, comprehensive course along with hands-on recipes to get your infrastructure up and running with Zabbix. About This Book Monitor your network and deploy impressive business solutions with Zabbix Get practical recipes to automate your Zabbix infrastructure and create impressive graphs Integrate, customize, and extend your monitoring solutions with external components and software. Who This Book Is For This course is for System Administrators who have been managing and monitoring infrastructure. You do not need any knowledge about Zabbix. What You Will Learn Efficiently collect data from a large variety of monitoring objects Organize your data in graphs, charts, maps, and slide shows Write your own custom probes and monitoring scripts to extend Zabbix Configure Zabbix and its database to be high available and fault-tolerant Automate repetitive procedures using Zabbix's API FInd out how to monitor SNMP devices Manage hosts, users, and permissions while acting upon monitored conditions

Set up your Zabbix infrastructure efficiently Customize the Zabbix interface to suit your system needs Monitor your VMware infrastructure in a quick and easy way with Zabbix In Detail Nowadays, monitoring systems play a crucial role in any IT environment. They are extensively used to not only measure your system's performance, but also to forecast capacity issues. This is where Zabbix, one of the most popular monitoring solutions for networks and applications, comes into the picture. With an efficient monitoring system in place, you'll be able to foresee when your infrastructure runs under capacity and react accordingly. Due to the critical role a monitoring system plays, it is fundamental to implement it in the best way from its initial setup. This avoids misleading, confusing, or, even worse, false alarms that can disrupt an efficient and healthy IT department. This course is for administrators who are looking for an end-to-end monitoring solution. It will get you accustomed with the powerful monitoring solution, starting with installation and explaining the fundamentals of Zabbix. Moving on, we explore the complex functionalities of Zabbix in the form of enticing recipes. These recipes will help you to gain control of your infrastructure. You will be able to organize your data in the form of graphs and charts along with building intelligent triggers for monitoring your network proactively. Toward the end, you will gain expertise in monitoring your networks and Page 41/42

applications using Zabbix. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Zabbix Network Monitoring-Second Edition Zabbix Cookbook Mastering Zabbix-Second Edition Style and approach This course is a compact practical guide that starts from the fundamentals of Zabbix and takes you all the way to building a monitoring solution that gathers data from a large variety of systems. Along the way, we will discuss the low-level operational details that should benefit you even if you have used Zabbix for a while. It also follows a step-by-step approach that is easy to follow, full of engaging examples, and will help you apply the theory to practice.

Cookbook with recipes based on real life examples. This book is written to assist the daily tasks for systems administrators, engineers, and architects working with Windows Server 2012.

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