Openshift Enterprise By Red Hat Atrioti

The Web is slowly but surely changing from a model in which a human reader browses content on web pages to a model in which services and clients (not necessarily humans) exchange information. And because of this, author Silvia Puglisi explains, it makes more sense to build platforms instead of just products or applications. Platforms are like ecosystems interconnecting different applications, services, users, developers, and partners, and offer many benefits. In this book, you'll learn how to design and develop Representational State Transfer (REST) platforms in Rails. You'll begin with an introduction to Ruby on Rails, and then move quickly through new concepts. At the end of each chapter, you'll have learned something new about building and organically extending a multi-service platform spanning different devices—and will have had some fun in the process. By the end of the book you'll know how to build an architecture composed of different services accessing shared resources through a set of collaborating APIs and applications. Explore the basics of REST and HTTP, including REST architecture and the role of hypermedia Get to know Rails and Ruby on Rails Learn about API development and create an API Take a thorough look at REST, including Asynchronous REST and testing RESTful services Work with data streams as you map them onto an application UI and integrate external APIs in your application Learn about device-independent development Use data analytics to recognize

important events, develop key metrics, and track them Explore various tools you can use to build your own data analytic platform Learn how to scale a Rails application successfully Examine privacy and security issues and the implications of handling and collecting user data

A standard tutorial-based approach to using OpenShift and deploying custom or pre-built web applications to the OpenShift Online cloud.This book is for software developers and DevOps alike who are interested in learning how to use the OpenShift Platform-as-a-Service for developing and deploying applications, how the environment works on the back end, and how to deploy their very own open source Platform-as-a-Service based on the upstream OpenShift Origin project.

XaaS: Everything-as-a-Service: The Lean and Agile Approach to Business Growth takes the reader into the bold new world of pay-per-use for a product or service. From the perspective of the customer, the servitization model yields multiple benefits: the consumer can try out the product/service at a relatively low cost, the risk is mitigated, capital expenses can be converted into operating expenses, it is not needed to forecast how often the product/service is used, and only parts of the product/service needed can be used. Similarly, a provider can benefit by having a larger market coverage, steadier stream of revenues, upgrades as and when needed, sharing of fixed assets across consumers, practicing of value-based pricing, and unbundling or bundling utility for consumers using appropriate pricing techniques. However, this 'nanoization' of

products/services is tricky, and has to be designed carefully. This book provides a set of recipes to providers to adopt the XaaS model by changing the provider's mindset: dividing the product/service forces the provider to take a value-driven approach to his product/service, and consequently, eliminate all non-value added activities. The requirements of the XaaS model serve both as an objective to the innovation and internal processes of the provider, and as guide to understanding the customer's needs. The book also covers data acquisition, data analysis and synthesis, and data application needs of the XaaS model, with simple examples and case studies from the business world of firms that achieve these objectives successfully.

3+ Hours of Video Instruction In more than 3 hours of video instruction, Red Hat OpenShift Fundamentals LiveLessons viewers will learn how to administer Red Hat OpenShift to manage containers in an enterprise environment and to integrate them in a DevOps environment. Overview In more than 3 hours of video instruction, Red Hat OpenShift Fundamentals LiveLessons viewers will learn how to administer Red Hat OpenShift to manage containers in an enterprise environment and to integrate them in a DevOps environment. Red Hat OpenShift Fundamentals LiveLessons provides an introduction to working with containers in an OpenShift environment, and covers all core aspects of working with containers in OpenShift. OpenShift is an increasingly popular platform that helps you more easily deploy applications in an enterprise environment. The platform helps developers to seamlessly roll out an application in the

form of a completely operational container. At the same time, it allows administrators to manage the application life cycle in a flexible way, where applications can be monitored for availability, and easily scaled up and down if the workload requires it. Learn how to get started with OpenShift in six lessons. In the first lesson, you'll learn how OpenShift can help you. An explanation of what OpenShift is, and how it relates to the Kubernetes platform is provided. The second lesson discusses how to get started with OpenShift, and different installation scenarios are demonstrated. Lesson 3 shows how to deploy applications in OpenShift, and Lesson 4 will explain software-defined networking, as implemented in OpenShift. Lesson 5 discusses more advanced features, such as pod scaling and node placement; and Lesson 6 shows how to connect containers in OpenShift to storage. With a combination of white-board instruction, demonstrations, and CLI learning, Sander van Vugt demystifies OpenShift. Skill Level Beginner/Intermediate Learn How To Understand when and how to use OpenShift depending on your environment Install the various versions of OpenShift Create applications from the web console Creating resources using the oc command line utility Use source-to-image to automatically build containers from the source code Use software-defined networking and using SDN in OpenShift Work with applications, including scaling Handle pod scheduling Manage images, image streams, and OpenShift templates Set up OpenShift storage Who Should Take This Course IT professionals that...

Get an in-depth tour of OpenShift, the container-based software deployment and management platform from Red Hat that provides a secure multi-tenant environment for the enterprise. This practical guide describes in detail how OpenShift, building on Kubernetes, enables you to automate the way you create, ship, and run applications in a containerized environment. Author Graham Dumpleton provides the knowledge you need to make the best use of the OpenShift container platform to deploy not only your cloud-native applications, but also more traditional stateful applications. Developers and administrators will learn how to run, access, and manage containers in OpenShift, including how to orchestrate them at scale. Build application container images from source and deploy them Implement and extend application image builders Use incremental and chained builds to accelerate build times Automate builds by using a webhook to link OpenShift to a Git repository Add configuration and secrets to the container as project resources Make an application visible outside the OpenShift cluster Manage persistent storage inside an OpenShift container Monitor application health and manage the application lifecycle This book is a perfect follow-up to OpenShift for Developers: A Guide for Impatient Beginners (O'Reilly).

IBM Storage for Red Hat OpenShift Container Platform is a comprehensive container-ready solution that includes all the hardware & software components necessary to setup and/or expand your Red Hat OpenShift Container Platform V3.11 environment. IBM Storage, bringing enterprise data services to containers. In this blueprint, learn how

to: • Combine the benefits of IBM Systems with the performance of IBM Storage solutions so that you can deliver the right services to your clients today! • Build a 24 by 7 by 365 enterprise class private cloud with Red Hat OpenShift Container Platform • Leverage enterprise class services such as NVMe based flash performance, high data availability, and advanced container security IBM Storage for Red Hat OpenShift Container Platform: designed for your DevOps environment for on-premises deployment with easy-to-consume components built to perform and scale for your enterprise. Simplify your journey to cloud with pre-tested and validated blueprints engineered to enable rapid deployment and peace of mind as you move to a hybrid multicloud environment. You now have the capabilities.

Red Hat, Inc. Is an American foreign code corporation that is involved in delivering open-source code articles to the organization group. Founded in 1993, Red Hat has its business head offices in Raleigh, North Carolina with orbiter bureaus international.

There has never been a Red Hat Guide like this. It contains 75 answers, much more than you can imagine; comprehensive answers and extensive details and references, with insights that have never before been offered in print. Get the information you need--fast! This all-embracing guide offers a thorough view of key knowledge and detailed insight. This Guide introduces what you want to know about Red Hat. A quick look inside of some of the subjects covered: List of mergers and acquisitions by Red Hat - Dogtail, List of mergers and acquisitions by Red Hat - OpenShift, Red Hat

Enterprise Linux, Red Hat Enterprise Linux derivatives - History, Red Hat Network - Architecture, Red Hat OpenShift - Supported frameworks, Red Hat Enterprise Virtualization, Red Hat Cluster Suite - History, Red Hat - Red Hat India, Red Hat Enterprise Linux - Life-cycle dates, Red Hat - One Laptop per Child, Red Hat Enterprise Linux - RHEL 3, Red Hat Enterprise Linux - RHEL 7, Red Hat Enterprise Linux - Relationships, Red Hat Enterprise Linux - RHEL 5, Red Hat Enterprise Linux - Rebuilds, Red Hat - opensource.com, Red Hat Enterprise Linux - Commercial products, Joyce Young - Red Hat, Inc., Red Hat Linux - Fedora, Red Hat Enterprise Linux - RHEL 6, List of mergers and acquisitions by Red Hat - Other projects, Red Hat - Mergers and acquisitions, Red Hat Directory Server - Features, Red Hat OpenShift - Competitors, Red Hat Cluster Suite - High-availability cluster, Red Hat Enterprise Linux derivatives - Legal aspects, SCO-Linux controversies - Red Hat v. SCO, Red Hat Enterprise Linux derivatives - Motivations, Red Hat - History, List of mergers and acquisitions by Red Hat - Fedora Project, Red Hat OpenShift, and much more...

Selling your CTO on the merits of OpenShift and Kubernetes is only the beginning. To operate and scale OpenShift, you also need to know how to manage and expose resources to application teams and continuously deliver changes to the applications running in these environments. With this practical book, new and experienced developers and operators will learn specific techniques for operationalizing OpenShift and Kubernetes in the enterprise. Industry experts Michael Elder, Jake Kitchener, and

Brad Topol show you how to run OpenShift and Kubernetes in production and deliver your applications to a highly available, secure, and scalable platform. You'll learn how to build a strong foundation in advanced cluster operational topics, such as tenancy management, scheduling and capacity management, cost management, continuous delivery, and more. Examine the fundamental concepts of Kubernetes architecture Get different Kubernetes and OpenShift environments up and running Dive into advanced resource management topics, including capacity planning Learn how to support high availability inside a single cluster Use production-level approaches for continuous delivery and code promotion across clusters Explore hybrid cloud use cases, including multicluster provisioning, upgrading, and policy support Devise and deliver disaster recovery strategies

Guidance for successful installation of a wide range of IBM software products KEY FEATURES ? Complete installation guide of IBM software systems, Redhat Enterprise, IBM Cloud, and Docker. ? Expert-led demonstration on complete configuration and implementation of IBM software solutions. ? Includes best practices and efficient techniques adopted by banks, financial services, and insurance companies. DESCRIPTION This book provides instructions for installation, configuration and troubleshooting sections to improve the IT support productivity and fast resolution of issues that arise. It covers readers' references that are available online and also step-by-step procedures required for a successful installation of a broad range of IBM Data Analytics products. This book provides a holistic in-depth knowledge for students, software architects, installation specialists, and developers of Data Analysis

software and a handbook for data analysts who want a single source of information on IBM Data Analysis Software products. This book provides a single resource that covers the latest available IBM Data Analysis software on the most recent RedHat Linux and IBM Cloud platforms. This book includes comprehensive technical guidance, enabling IT professionals to gain an in-depth knowledge of the installation of a broad range of IBM Software products across different operating systems. WHAT YOU WILL LEARN ? Step-by-step installation and configuration of IBM Watson Analytics. ? Managing RedHat Enterprise Systems and IBM Cloud Platforms. ? Installing, configuring, and managing IBM StoredIQ. ? Best practices to administer and maintain IBM software packages. ? Upgrading VMware stations and installing Docker. WHO THIS BOOK IS FOR This book is a go-to guide for IT professionals who are primarily Solution Architects, Implementation Experts, or Technology Consultants of IBM Software suites. This will also be a useful guide for IT managers who are looking to adopt and enable their enterprise with IBM products. TABLE OF CONTENTS 1. Getting Started with IBM Resources for Analytics 2. IBM Component Software Compatibility Matrix 3. IBM Download Procedures 4. On-Premise Server Configurations and Prerequisites 5. IBM Fix Packs 6. IBM Cloud PAK Systems 7. RedHat OpenShift 4.x Installations 8. IBM Cloud Private System 9. Base VMWare System Platform 10. IBM Cloud Private Cluster on CentOS 8.0 11. UIMA Pipeline and Java Code Extensions 12. IBM Watson Explorer Foundational Components V12 13. IBM Watson Explorer oneWEX 12.0.3 14. IBM StoredIQ for Legal APPENDIX References and End of Life Support

Discover how cloud-native microservice architecture helps you to build dynamically scalable applications by using the most widely used and adopted runtime environments Key Features

Build robust cloud-native applications using a variety of tools Understand how to configure both Amazon Web Services (AWS) and Docker clouds for high availability Explore common design patterns used in building and deploying microservices architecture. Book Description Businesses today are evolving rapidly, and developers now face the challenge of building applications that are resilient, flexible, and native to the cloud. To achieve this, you'll need to be aware of the environment, tools, and resources that you're coding against. The book will begin by introducing you to cloud-native architecture and simplifying the major concepts. You'll learn to build microservices in Jakarta EE using MicroProfile with Thorntail and Narayana LRA. You'll then delve into cloud-native application x-rays, understanding the MicroProfile specification and the implementation/testing of microservices. As you progress further, you'll focus on continuous integration and continuous delivery, in addition to learning how to dockerize your services. You'll also cover concepts and techniques relating to security, monitoring, and troubleshooting problems that might occur with applications after you've written them. By the end of this book, you will be equipped with the skills you need to build highly resilient applications using cloud-native microservice architecture. What you will learn Integrate reactive principles in MicroProfile microservices architecture Explore the 12-factors-app paradigm and its implications Get the best out of Java versions 8 and 9 to implement a microservice based on Thorntail Understand what OpenShift is and why it is so important for an elastic architecture Build a Linux container image using Docker and scale the application using Kubernetes Implement various patterns such as, Circuit Breaker and bulkheads Get to grips with the DevOps methodology using continuous integration (CI) and continuous deployment (CD) Who this book is for This book is for developers with basic knowledge of Java EE and HTTP-based

application principles who want to learn how to build, test and scale Java EE microservices. No prior experience of writing microservices in Java EE is required.

This IBM® Redpaper publication describes how to deploy Red Hat OpenShift V4.3 on IBM Power Systems servers. This book presents reference architectures for deployment, initial sizing guidelines for server, storage, and IBM Cloud® Paks. Moreover, this publication delivers information about initial supported Power System configurations for Red Hat OpenShift V4.3 deployment (bare metal, IBM PowerVM® LE LPARs, and others). This book serves as a guide for how to deploy Red Hat OpenShift V4.3 and provide start guidelines and recommended practices for implementing it on Power Systems and completing it with the supported IBM Cloud Paks. The publication addresses topics for developers, IT architects, IT specialists, sellers, and anyone who wants to implement a Red Hat OpenShift V4.3 and IBM Cloud Paks on IBM Power Systems. This book also provides technical content to transfer how-to skills to the support teams, and solution guidance to the sales team. This book compliments the documentation that is available at IBM Knowledge Center, and also aligns with the educational offerings that are provided by the IBM Systems Technical Education (SSE).

IBM® Power Virtualization Center (IBM® PowerVCTM) is an advanced enterprise virtualization management offering for IBM Power Systems. This IBM Redbooks® publication introduces IBM PowerVC and helps you understand its functions, planning, installation, and setup. It also shows how IBM PowerVC can integrate with systems management tools such as Ansible or Terraform and that it also integrates well into a OpenShift container environment. IBM PowerVC Version 2.0.0 supports both large and small deployments, either by managing IBM PowerVM® that is controlled by the Hardware Management Console (HMC), or by IBM

PowerVM NovaLink. With this capability, IBM PowerVC can manage IBM AIX®, IBM i, and Linux workloads that run on IBM POWER® hardware. IBM PowerVC is available as a Standard Edition, or as a Private Cloud Edition. IBM PowerVC includes the following features and benefits: Virtual image capture, import, export, deployment, and management Policy-based virtual machine (VM) placement to improve server usage Snapshots and cloning of VMs or volumes for backup or testing purposes Support of advanced storage capabilities such as IBM SVC vdisk mirroring of IBM Global Mirror Management of real-time optimization and VM resilience to increase productivity VM Mobility with placement policies to reduce the burden on IT staff in a simple-to-install and easy-to-use graphical user interface (GUI) Automated Simplified Remote Restart for improved availability of VMs ifor when a host is down Role-based security policies to ensure a secure environment for common tasks The ability to enable an administrator to enable Dynamic Resource Optimization on a schedule IBM PowerVC Private Cloud Edition includes all of the IBM PowerVC Standard Edition features and enhancements: A self-service portal that allows the provisioning of new VMs without direct system administrator intervention. There is an option for policy approvals for the requests that are received from the self-service portal. Pre-built deploy templates that are set up by the cloud administrator that simplify the deployment of VMs by the cloud user. Cloud management policies that simplify management of cloud deployments. Metering data that can be used for chargeback. This publication is for experienced users of IBM PowerVM and other virtualization solutions who want to understand and implement the next generation of enterprise virtualization management for Power Systems. Unless stated otherwise, the content of this publication refers to IBM PowerVC Version 2.0.0.

Many companies claim to have "gone to the cloud," yet returns from their efforts are meager or worse. Why? Because they've defined cloud as a destination, not a capability. Using cloud as a single-vendor, one-stop destination is fiction; in practice, today's organizations use a mosaic of capabilities across several vendors. Your cloud strategy needs to follow a hybrid multicloud model, one that delivers cloud's value at destinations you choose. This practical guide provides business leaders and C-level executives with guidance and insights across a wide range of cloud-related topics, such as distributed cloud, microservices, and other open source solutions for strengthening operations. You'll apply in-the-field best practices and lessons learned as you define your hybrid cloud strategy and drive your company's transformation strategy. Learn cloud fundamentals and patterns, including basic concepts and history Get a framework for cloud acumen phases to value-plot your cloud future Know which questions to ask a cloud provider before you sign Discover potential pitfalls for everything from the true cost of a cloud solution to adopting open source the right way

Summary OpenShift in Action is a full reference to Red Hat OpenShift that breaks down this robust container platform so you can use it day-to-day. Combining Docker and Kubernetes, OpenShift is a powerful platform for cluster management, scaling, and upgrading your enterprise apps. It doesn't matter why you use OpenShift--by the end of this book you'll be able to handle every aspect of it, inside and out! Foreword by Jim Whitehurst, Red Hat. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Containers let you package everything into one neat place, and with Red Hat OpenShift you can build, deploy, and run those packages all in one place! Combining Docker and Kubernetes, OpenShift is a powerful platform for cluster management,

scaling, and upgrading your enterprise apps. About the Book OpenShift in Action is a full reference to Red Hat OpenShift that breaks down this robust container platform so you can use it day-to-day. Starting with how to deploy and run your first application, you'll go deep into OpenShift. You'll discover crystal-clear explanations of namespaces, cgroups, and SELinux, learn to prepare a cluster, and even tackle advanced details like software-defined networks and security, with real-world examples you can take to your own work. It doesn't matter why you use OpenShift--by the end of this book you'll be able to handle every aspect of it, inside and out! What's Inside Written by lead OpenShift architects Rock-solid fundamentals of Docker and Kubernetes Keep mission-critical applications up and running Manage persistent storage About the Reader For DevOps engineers and administrators working in a Linux-based distributed environment. About the Authors Jamie Duncan is a cloud solutions architect for Red Hat, focusing on large-scale OpenShift deployments. John Osborne is a principal OpenShift architect for Red Hat. Table of Contents PART 1 - FUNDAMENTALS Getting to know OpenShift Getting started Containers are Linux PART 2 - CLOUD-NATIVE APPLICATIONS Working with services Autoscaling with metrics Continuous integration and continuous deployment PART 3 - STATEFUL APPLICATIONS Creating and managing persistent storage Stateful applications PART 4 - OPERATIONS AND SECURITY Authentication and resource access Networking Security

IBM Storage for Red Hat OpenShift BlueprintIBM Redbooks

Gain hands-on experience of installing OpenShift Origin 3.9 in a production configuration and managing applications using the platform you built Key Features Gain hands-on experience of working with Kubernetes and Docker Learn how to deploy and manage applications in

OpenShift Get a practical approach to managing applications on a cloud-based platform Explore multi-site and HA architectures of OpenShift for production Book Description Docker containers transform application delivery technologies to make them faster and more reproducible, and to reduce the amount of time wasted on configuration. Managing Docker containers in the multi-node or multi-datacenter environment is a big challenge, which is why container management platforms are required. OpenShift is a new generation of container management platforms built on top of both Docker and Kubernetes. It brings additional functionality to the table, something that is lacking in Kubernetes. This new functionality significantly helps software development teams to bring software development processes to a whole new level. In this book, we'll start by explaining the container architecture, Docker, and CRI-O overviews. Then, we'll look at container orchestration and Kubernetes. We'll cover OpenShift installation, and its basic and advanced components. Moving on, we'll deep dive into concepts such as deploying application OpenShift. You'll learn how to set up an end-to-end delivery pipeline while working with applications in OpenShift as a developer or DevOps. Finally, you'll discover how to properly design OpenShift in production environments. This book gives you hands-on experience of designing, building, and operating OpenShift Origin 3.9, as well as building new applications or migrating existing applications to OpenShift. What you will learn Understand the core concepts behind containers and container orchestration tools Understand Docker, Kubernetes, and OpenShift, and their relation to CRI-O Install and work with Kubernetes and OpenShift Understand how to work with persistent storage in OpenShift Understand basic and advanced components of OpenShift, including security and networking Manage deployment strategies and application's migration in OpenShift

Understand and design OpenShift high availability Who this book is for The book is for system administrators, DevOps engineers, solutions architects, or any stakeholder who wants to understand the concept and business value of OpenShift.

Prepare for Microsoft Exam 70-532—and help demonstrate your real-world mastery of the skills needed to develop Microsoft Azure solutions. Designed for experienced IT professionals ready to advance their status, Exam Ref focuses on the critical thinking and decision-making acumen needed for job success. Focus on the expertise measured by these objectives: Create and manage Azure Resource Manager Virtual Machines Design and implement a storage and data strategy Manage identity, application, and network services Design and implement Azure PaaS compute, web, and mo bile services This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have experience designing, programming, implementing, automating, and monitoring Microsoft Azure solutions, and are proficient with tools, techniques, and approaches for building scalable, resilient solutions About the Exam Exam 70-532 focuses on skills and knowledge for building highly available solutions in the Microsoft Azure cloud. About Microsoft Certification This exam is for candidates who are experienced in designing, programming, implementing, automating, and monitoring Microsoft Azure solutions. Candidates are also proficient with development tools, techniques, and approaches used to build scalable and resilient solutions. See full details at: microsoft.com/learning

This IBM® Redbooks® publication delivers a Site Reliability Engineering (SRE) solution for cloud workloads that uses Red Hat OpenStack for Infrastructure as a Service (IaaS), Red Hat OpenShift for Platform as a Service (PaaS), and IT operations management that uses open source tools. Today, customers are no longer living in a world of licensed software. Curiosity increased the demand for investigating the Open Source world for Community Open Source and Enterprise grade applications. IBM as one of the contributors to the Open Source community is interested in helping the software be maintained and supported. Having companies, such as IBM, support the evolution of Open Source software helps to keep the Open Source community striving for enterprise grade open source solutions. Lately, companies are working on deciphering how to take advantage of Enterprise and Community Open Source to implement in their enterprises. The business case for open source software is no longer a mystery and no surprise that most of the new positions in IT enterprises are related to open source projects. The ability of a large enterprise to manage this sort of implementations is to engage in a hypertrophied cooperation, where the ability to not only cooperate with teams and people outside your organization, but also to find new ways of working together and devise new ways to improve the software and its code. A goal for this publication is to help the client's journey into the open source space and implement a private Cloud Container-based architecture with the ability to manage the entire IT Service Management processes from the open source framework. This publication

describes the architecture and implementation details of the solution. Although not every piece of this solution is documented here, this book does provide instructions for what was achieved incorporating open source technologies. Moreover, with this publication, the team shares their collaboration experiences working in a team of technologists, open source developers, Red Hat, and the open source community. This publication is for designers, developers, managers, and anyone who is considering starting a Cloud open source project, or users who started that journey. This book also can be a manual to guide the implementation of a technical viable architecture and help those enterprises participate in an open source project but have not done so before. The reader must be familiar with principles in programming and basic software engineering concepts, such as source code, compilers, and patches.

Develop the skill to manage and administer Red Hat Enterprise Linux and get ready to achieve the RHCSA certification Key Features Learn the most common administration and security tasks and manage enterprise Linux infrastructures efficiently Assess your knowledge using self-assessment questions based on real-world examples Understand how to apply the concepts of core systems administration in the real world Book Description Whether in infrastructure or development, as a DevOps or site reliability engineer, Linux skills are now more relevant than ever for any IT job, forming the foundation of understanding the most basic layer of your architecture. With Red Hat Enterprise Linux (RHEL) becoming the most popular choice for enterprises worldwide,

achieving the Red Hat Certified System Administrator (RHCSA) certification will validate your Linux skills to install, configure, and troubleshoot applications and services on RHEL systems. Complete with easy-to-follow tutorial-style content, self-assessment questions, tips, best practices, and practical exercises with detailed solutions, this book covers essential RHEL commands, user and group management, software management, networking fundamentals, and much more. You'll start by learning how to create an RHEL 8 virtual machine and get to grips with essential Linux commands. You'll then understand how to manage users and groups on an RHEL 8 system, install software packages, and configure your network interfaces and firewall. As you advance, the book will help you explore disk partitioning, LVM configuration, Stratis volumes, disk compression with VDO, and container management with Podman, Buildah, and Skopeo. By the end of this book, you'll have covered everything included in the RHCSA EX200 certification and be able to use this book as a handy, on-the-job desktop reference guide. This book and its contents are solely the work of Miguel Perez Colino, Pablo Iranzo Gomez, and Scott McCarty. The content does not reflect the views of their employer (Red Hat Inc.). This work has no connection to Red Hat, Inc. and is not endorsed or supported by Red Hat, Inc. What you will learn Deploy RHEL 8 in different footprints, from bare metal and virtualized to the cloud Manage users and software on local and remote systems at scale Discover how to secure a system with SELinux, OpenSCAP, and firewalld Gain an overview of storage components with LVM,

Stratis, and VDO Master remote administration with passwordless SSH and tunnels Monitor your systems for resource usage and take actions to fix issues Understand the boot process, performance optimizations, and containers Who this book is for This book is for IT professionals or students who want to start a career in Linux administration and anyone who wants to take the RHCSA 8 certification exam. Basic knowledge of Linux and familiarity with the Linux command-line is necessary.

IBM Storage for Red Hat OpenShift is a comprehensive container-ready solution that includes all the hardware & software components necessary to setup and/or expand your Red Hat OpenShift environment. This blueprint includes Red Hat OpenShift Container Platform and uses Container Storage Interface (CSI) standards. IBM Storage brings enterprise data services to containers. In this blueprint, learn how to: · Combine the benefits of IBM Systems with the performance of IBM Storage solutions so that you can deliver the right services to your clients today! · Build a 24 by 7 by 365 enterprise class private cloud with Red Hat OpenShift Container Platform utilizing new open source Container Storage interface (CSI) drivers · Leverage enterprise class services such as NVMe based flash performance, high data availability, and advanced container security IBM Storage for Red Hat OpenShift Container Platform is designed for your DevOps environment for on-premises deployment with easy-to-consume components built to perform and scale for your enterprise. Simplify your journey to cloud with pre-tested and validated blueprints engineered to enable rapid deployment and peace of

mind as you move to a hybrid multicloud environment. You now have the capabilities. Enterprises require support and agility to work with big data repositories and relational databases. FUJITSU Enterprise Postgres is one of the leading relational database management systems (RDBMSs), and it is designed to work with large data sets. As more companies transform their infrastructures with hybrid cloud services, they require environments that protect the safety of their data and business rules. At IBM®, we believe that your data is yours and yours alone. The insights and advantages that come from your data are yours to use in the pursuit of your business objectives. IBM is dedicated to this mission, and the IBM LinuxONE platform is designed around this core statement. IBM LinuxONE is a secure and scalable data serving and computing platform that is made for today's critical workloads. IBM LinuxONE is an all-Linux enterprise platform for open innovation that combines the best of Linux and open technology with the best of enterprise computing in one system. Combining FUJITSU Enterprise Postgres, which is a robust Relational Database Management System (RDBMS) that provides strong query performance and high availability (HA), with IBM LinuxONE can transform your application and data portfolio by providing innovative data privacy, security, and cyber resiliency capabilities, which are all delivered with minimal downtime. This IBM Redbooks® publication describes data serving with FUJITSU Enterprise Postgres 12 that is deployed on IBM LinuxONE, which provides the scalability, business-critical availability, and security that your enterprise requires.

This publication is useful to IT architects, system administrators, and others who are interested in understanding the significance of using FUJITSU Enterprise Postgres on IBM LinuxONE. This publication is written for those who are familiar with IBM LinuxONE and have some experience in the use of PostgreSQL.

This document brings together a set of latest data points and publicly available information relevant for Agile & AI Operations Industry. We are very excited to share this content and believe that readers will benefit from this periodic publication immensely.

If you are a web application developer who wants to use the OpenShift platform to host your next big idea but are looking for guidance on how to achieve this, then this book is the first step you need to take. This is a very accessible cookbook where no previous knowledge of OpenShift is needed.

OpenShift adalah sebuah bentuk polyglot platform, disebut demikian karena penggunaan platform yang menggunakan lebih dari satu teknologi platform (sistem yang dibangun di atas platform). Biasanya OpenShift digunakan untuk membangun sebuah aplikasi web dan services, yang mana menggunakan sekumpulan container yang berkaitan dengan lingkungan SELinux (Security-Enhanced Linux – Otorisasi untuk keamanan di sistem operasi Linux). Kita dapat memasang OpenShift pada infrastruktur kita sendiri atau pada cloud yang berada di publik, atau bahkan kita bisa memanfaatkan layanan OpenShift secara online yang telah disediakan oleh Red Hat

secara langsung di Red Hat OpenShift. Dikutip langsung dari situsnya, OKD adalah distribusi dari Kubernetes yang telah di optimasi untuk pengembangan aplikasi yang berkesinambungan dan multi-tenant. OKD menambahkan tools untuk para developer dan sistem operations untuk membangun aplikasi dengan cepat di atas Kubernetes, bahkan untuk maintenance jangka panjang. Apa yang bisa kita jalankan di OKD – OpenShift ? OKD di desain untuk menjalankan Kubernetes dalam jumlah yang besar, dibangun dan dikembangkan dengan konsep kontainerisasi.

This IBM® Redpaper publication documents how to containerize and deploy SAP software into Red Hat OpenShift 4 Kubernetes clusters on IBM Power Systems by using predefined Red Hat Ansible scripts, different configurations, and theoretical knowledge, and it documents the findings through sample scenarios. This paper documents the following topics: Running SAP S/4HANA, SAP HANA, and SAP NetWeaver on-premises software in containers that are deployed in Red Hat OpenShift 4 on IBM Power Systems hardware. Existing SAP systems running on IBM Power Systems can be repackaged at customer sites into containers that use predefined Red Hat Ansible scripts. These containers can be deployed multiple times into Red Hat OpenShift 4 Kubernetes clusters on IBM Power Systems. The target audiences for this paper are Chief Information Officers (CIOs) that are interested in containerized solutions of SAP Enterprise

Resource Planning (ERP) systems, developers that need containerized environments, and system administrators that provide and manage the infrastructure with underpinning automation. This paper complements the documentation that is available at IBM Knowledge Center, and it aligns with the educational materials that are provided by IBM GarageTM for Systems Education.

Create modular scalable enterprise-grade applications with JBoss Enterprise Application Platform 7 About This Book Leverage the power of JBoss EAP 7 along with Java EE 7 to create professional enterprise grade applications. Get you applications cloud ready and make them highly scalable using this advanced guide. Become a pro Java Developer and move ahead of the crowd with this advanced practical guide. Who This Book Is For The ideal target audience for this book is Java System Administrators who already have some experience with JBoss EAP and who now want explore in depth creating Enterprise grade apps with the latest JBoss EAP version. What You Will Learn Configure services using the Command Line Interface Deliver fault tolerant server configurations Harden the application server with advanced techniques Expand the application server's horizon with tools such as like Docker/OpenShift Create enterprise ready configurations using clustering techniques. Deliver advanced security solutions

and learn how to troubleshoot common network/performance issues In Detail The JBoss Enterprise Application Platform (EAP) has been one of the most popular tools for Java developers to create modular, cloud-ready, and modern applications. It has achieved a reputation for architectural excellence and technical savvy, making it a solid and efficient environment for delivering your applications. The book will first introduce application server configuration and the management instruments that can be used to control the application server. Next, the focus will shift to enterprise solutions such as clustering, load balancing, and data caching; this will be the core of the book. We will also discuss services provided by the application server, such as database connectivity and logging. We focus on real-world example configurations and how to avoid common mistakes. Finally, we will implement the knowledge gained so far in terms of Docker containers and cloud availability using RedHat's OpenShift. Style and approach If you are a Java developer who wants to level-up to modern day Java web development with the latest Java EE 7 and JBoss EAP 7, this book is the ideal solution for you. It addresses (in a clear and simple way) proof-of-concept scenarios such as clustering and cloud and container configurations, and explains how to solve common issues.

An end-to-end guide for IBM implementation partners and solution providers.

KEY FEATURES ? Detailed step-by-step IBM Software installation and configuration that saves time for installing and configuring computers. ? Designed for students, IT consultants, systems and solution architects, data analysts, and developers. ? Unique solution documentation for running Cognos configuration designed for banks, financial services, and insurance companies. DESCRIPTION This book shows how to install IBM Cognos Analytics software and related systems on RedHat Enterprise Linux 8.0, IBM Cloud, IBM Cloud Private (Community Edition), and Windows 10. It includes step-by-step instructions for downloading and installing IBM Cognos Analytics. It also includes numerous examples of setups and updates to analyze the OLAP database utilized by the IBM Case Manager. The initial chapters discuss the installation of IBM Information Management Products. The reader will know the URLs of the downloading sites, the product codes, descriptions, sizes, and the names of each software downloaded to the gzip tar file. It includes setting up RHEL 8.0 Linux OS and using the Docker system for installation on IBM Cloud PAK servers, RedHat Openshift clusters, and IBM Cloud Private. The IBM Cognos installation contains versions 11.1.1 through 11.4.0 on RedHat Linux 8.0 and Windows 10. The book includes the usage of the IBM Cognos Analytics 11.1 R4 Dynamic Cube Datastore and the 11.1 R4 Cube Designer for the report and dashboard.

Additionally, the book includes constructing the essential Zlib library from the C language source download, its compilation, and linking. WHAT YOU WILL LEARN ? Detailed step-by-step instructions for installing IBM Cognos Analytics. ? Installation on Windows 10, RedHat Enterprise Linux 8.0, IBM Cloud, and IBM Cloud Private (CE). ? Downloading, compiling, and linking the necessary zlib library on Linux. ? Connecting to the CASTORE database using an example of Cognos Analytics configuration. ? Creating OLAP Cubes for IBM Case Manager dashboard reports. WHO THIS BOOK IS FOR This book is for IT consultants, architects for systems and solutions, data analysts, and data analytics solution developers. All the examples in the book are based on Unix/Windows and web-based tool basic knowledge. TABLE OF CONTENTS 1. Getting Started with IBM Resources for Cognos 2. IBM Cloud PAK Systems 3. RedHat OpenShift 4.x Installations 4. IBM Cloud Private Cluster systems 5. IBM Cognos Analytics 11. On RHEL 8.0 6. IBM Cognos Analytics 11. On Windows 10.0 7. IBM Cognos Analytics 11 on RHEL 8.0 Linux Fix for Zlib

Learn how to work with the Automate feature of CloudForms, the powerful Red Hat cloud management platform that lets you administer your virtual infrastructure, including hybrid public and private clouds. This practical hands-on introduction shows you how to increase your operational efficiency by automating

day-to-day tasks that now require manual input. Throughout the book, author Peter McGowan provides a combination of theoretical information and practical coding examples to help you learn the Automate object model. With this CloudForms feature, you can create auto-scalable cloud applications, eliminate manual decisions and operations when provisioning virtual machines and cloud instances, and manage your complete virtual machine lifecycle. In six parts, this book helps you: Learn the objects and concepts for developing automation scripts with CloudForms Automate Customize the steps and workflows involved in provisioning virtual machines Create and use service catalogs, items, dialogs, objects, bundles, and hierarchies Use CloudForm's updated workflow to retire and delete virtual machines and services Orchestrate and coordinate with external services as part of a workflow Explore distributed automation processing as well as argument passing and handling

This IBM® Blueprint is intended to facilitate the deployment of IBM Storage for Red Hat OpenShift Container Platform by using detailed hardware specifications to build a system. It describes the associated parameters for configuring persistent storage within a Red Hat OpenShift Container Platform environment. To complete the tasks, you must understand Red Hat OpenShift, IBM Storage, the IBM block storage Container Storage Interface (CSI) driver, and the IBM

Spectrum Scale CSI driver. The information in this document is distributed on an "as is" basis without any warranty that is either expressed or implied. Support assistance for the use of this material is limited to situations where IBM Storwize® or IBM FlashSystem® storage devices, Enterprise Storage Server®, and IBM Spectrum® Scale are supported and entitled, and where the issues are not specific to a blueprint implementation. IBM Storage Suite for IBM Cloud® Paks is an offering bundle that includes software-defined storage from IBM and Red Hat. Use this document for more information about how to deploy IBM Storage product licenses that are obtained through Storage Suite for Cloud Paks (IBM Spectrum Virtualize and IBM Spectrum Scale).

Keen to build web applications for the cloud? Get a quick hands-on introduction to OpenShift, the open source Platform as a Service (PaaS) offering from Red Hat. With this practical guide, you'll learn the steps necessary to build, deploy, and host a complete real-world application on OpenShift without having to slog through long, detailed explanations of the technologies involved. OpenShift enables you to use Docker application containers and the Kubernetes cluster manager to automate the way you create, ship, and run applications. Through the course of the book, you'll learn how to use OpenShift and the Wildfly application server to build and then immediately deploy a Java application online. Learn

about OpenShift's core technology, including Docker-based containers and Kubernetes Use a virtual machine with OpenShift installed and configured on your local environment Create and deploy your first application on the OpenShift platform Add language runtime dependencies and connect to a database Trigger an automatic rebuild and redeployment when you push changes to the repository Get a working environment up in minutes with application templates Use commands to check and debug your application Create and build Docker-based images for your application

The purpose of this document is to show how to install RedHat OpenShift Container Platform (OCP) on Amazon web services (AWS) public cloud with OpenShift installer, a method that is known as Installer-provisioned infrastructure (IPI). We also describe how to validate the installation of IBM container storage interface (CSI) driver on OCP 4.2 that is installed on AWS. This document also describes the installation of OCP 4.x on AWS with customization and OCP 4.x installation on IBM cloud. This document discusses how to provision internet small computer system interface (iSCSI) storage that is made available by IBM Spectrum® Virtualize for Public Cloud (SVPC) that is deployed on AWS. Finally, the document discusses the use of Red Hat OpenShift command line interface (CLI), OCP web console graphical user interface (GUI), and AWS console.

With the increasing demand for distributed systems for Java applications, WildFly offers a robust platform on which to deploy and manage your services. As a matter of fact, WildFly 9 is a fully certified Java EE 7 platform and provides remote management tools, such as the redesigned Admin Console and the new and powerful Command Line Interface (CLI). With practical and accessible material, you will begin by learning to set up your WildFly runtime environment, and progress to selecting appropriate operational models, managing subsystems, and conquering the CLI. You will then walk through the different balancing and clustering techniques, simultaneously learning about role-based access control and then developing applications targeting WildFly and Docker.

This IBM® Redpaper publication describes the architecture, installation procedure, and results for running a typical training application that works on an automotive data set in an orchestrated and secured environment that provides horizontal scalability of GPU resources across physical node boundaries for deep neural network (DNN) workloads. This paper is mostly relevant for systems engineers, system administrators, or system architects that are responsible for data center infrastructure management and typical day-to-day operations such as system monitoring, operational control, asset management, and security audits. This paper also describes IBM Spectrum® LSF® as a workload manager and IBM Spectrum Discover as a metadata search engine to find the right data for an inference job and automate the data science workflow. With the help of this solution, the data location, which may be on different

storage systems, and time of availability for the AI job can be fully abstracted, which provides valuable information for data scientists.

This IBM® Redpaper publication provides all the necessary steps to successfully install Red Hat OpenShift 4.4 on IBM Z® or LinuxONE servers. It also provides an introduction to OpenShift nodes, Red Hat Enterprise Linux CoreOS, and Ansible. The steps that are described in this paper are taken from the official pages of the Red Hat website. This IBM Redpaper publication was written for IT architects, IT specialists, and others who are interested in installing Red Hat OpenShift on IBM Z.

Intrigued by the possibilities of developing web applications in the cloud? With this concise book, you get a quick hands-on introduction to OpenShift, the open source Platform as a Service (PaaS) offering from Red Hat. You'll learn the steps necessary to build, deploy, and host a complete real-world application on OpenShift, without having to read long, detailed explanations of the technologies involved. Though the book uses Python, application examples in other languages are available on GitHub. If you can build web applications, use a command line, and program in Java, Python, Ruby, Node.js, PHP, or Perl, you're ready to get started. Dive in and create your first example application with OpenShift Modify the example with your own code and hot-deploy the changes Add components such as a database, task scheduling, and monitoring Use external libraries and dependencies in your application Delve into networking, persistent storage, and backup options Explore ways to adapt your team processes to use OpenShift Learn OpenShift terms, technologies, and commands Get a list of resources to learn more about OpenShift and PaaS

RedHat OpenShift container platform is one of the leading enterprise-grade container

orchestration platforms. It is designed for rapid deployment of web applications, databases, and microservices. Categorized as a container orchestration Platform as a Service (PaaS), it is based on open industry standards, such as the Container Runtime Interface - Open (CRI-O) and Kubernetes. OpenShift allow developers to focus on the code, while the platform manages the complex IT operations and processes. Although open-source, community-driven container orchestration platforms are available, such as OKD and Kubernetes, this IBM® Redpaper® publication focuses on Red Hat OpenShift. It describes the basic concepts of OpenShift persistent storage architecture and its integration into IBM Cloud® Paks. The deployment of the IBM block storage CSI driver also is discussed. This publication also describes the concepts, technology and current working practices for installing the Container Storage Interface (CSI) plug-in for Kubernetes to use IBM Enterprise Storage platforms for persistent storage coupled with Red Hat OpenShift Container Platform (OCP). This publication also provides an overview of containers, Kubernetes, and Openshift for context (it is expected that the reader has a working knowledge of these underlying technologies). It also includes architectural examples of the orchestration platform will be given. This paper serves as a guide about how to deploy the CSI driver for block storage by using the DS8000® and Spectrum Virtualize platforms as persistent storage in a Red Hat OpenShift platform. The publication is intended for storage administrators, IT architects, OpenShift technical specialists and anyone who wants to integrate IBM Enterprise storage on OpenShift V4.3/4.4/4.5 on IBM Power, IBM Z®, and x86 systems.