

## Deployment Fundamentals Vol 6 Deploying Windows 10 Using Microsoft Deployment Toolkit

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

Kubernetes is the operating system of the cloud native world, providing a reliable and scalable platform for running containerized workloads. In this friendly, pragmatic book, cloud experts John Arundel and Justin Domingus show you what Kubernetes can do—and what you can do with it. You'll learn all about the Kubernetes ecosystem, and use battle-tested solutions to everyday problems. You'll build, step by step, an example cloud native application and its supporting infrastructure, along with a development environment and continuous deployment pipeline that you can use for your own applications. Understand containers and Kubernetes from first principles; no experience necessary Run your own clusters or choose a managed Kubernetes service from Amazon, Google, and others Use Kubernetes to manage resource usage and the container lifecycle Optimize clusters for cost, performance, resilience, capacity, and scalability Learn the best tools for developing, testing, and deploying your applications Apply the latest industry practices for security, observability, and monitoring Adopt DevOps principles to help make your development teams lean, fast, and effective

Get a head start deploying Windows 10—with tips and best practices from experts in the field. This guide shows you how to deploy Windows 10 in an automated way without impacting end users by leveraging System Center Configuration Manager, which is the most used product to deploy Microsoft operating systems in the industry today.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Used by sites as varied as Twitter, GitHub, Disney, and Airbnb, Ruby on Rails is one of the most popular frameworks for developing web applications, but it can be challenging to learn and use. Whether you're new to web development or new only to Rails, Ruby on Rails™ Tutorial, Fourth Edition, is the solution. Best-selling author and leading Rails developer Michael Hartl teaches Rails by guiding you through the development of three example applications of increasing sophistication. The tutorial's examples focus on the general principles of web development needed for virtually any kind of website. The updates to this edition include full compatibility with Rails 5, a division of the largest chapters into more manageable units, and a huge number of new exercises interspersed in each chapter for maximum reinforcement of the material. This indispensable guide provides integrated tutorials not only for Rails, but also for the essential Ruby, HTML, CSS, and SQL skills you need when developing web applications. Hartl explains how each new technique solves a real-world problem, and then he demonstrates it with bite-sized code that's simple enough to understand, yet novel enough to be useful. Whatever your previous web development experience, this book will guide you to true Rails mastery. This book will help you Install and set up your Rails development environment, including pre-installed integrated development environment (IDE) in the cloud Go beyond generated code to truly understand how to build Rails applications from scratch Learn testing and test-driven development (TDD) Effectively use the Model-View-Controller (MVC) pattern Structure applications using the REST architecture Build static pages and transform them into dynamic ones Master the Ruby programming skills all Rails developers need Create high-quality site layouts and data models Implement registration and authentication systems, including validation and secure passwords Update, display, and delete users Upload images in production using a cloud storage service Implement account activation and password reset, including sending email with Rails Add social features and microblogging, including an introduction to Ajax Record version changes with Git and create a secure remote repository at Bitbucket Deploy your applications early and often with Heroku

The "Microsoft Azure Essentials" series helps you advance your technical skills with Microsoft Azure. "Microsoft Azure Essentials: Azure Web Apps for Developers" focuses on providing essential information about developing web applications hosted on Azure Web Apps. It is written with the developer who has experience using Visual Studio and the .NET Framework in mind. If Azure Web Apps is new to you, this book is for you. If you have experience developing for Azure Web Apps, this book is for you, too, because there are features and tools discussed in this text that are new to the platform.

Build a modern data platform by deploying SQL Server in Kubernetes. Modern application deployment needs to be fast and consistent to keep up with business objectives and Kubernetes is quickly becoming the standard for deploying container-based applications, fast. This book introduces Kubernetes and its core concepts. Then it shows you how to build and interact with a Kubernetes cluster. Next, it goes deep into deploying and operationalizing SQL Server in Kubernetes, both on premises and in cloud environments such as the Azure Cloud. You will begin with container-based application fundamentals and then go into an architectural overview of a Kubernetes container and how it manages application state. Then you will learn the hands-on skill of building a production-ready cluster. With your cluster up and running, you will learn how to interact with your cluster and perform common administrative tasks. Once you can admin the cluster, you will learn how to deploy applications and SQL Server in Kubernetes. You will learn about high-availability options, and about using Azure Arc-enabled Data Services. By the end of this book, you will know how to set up a Kubernetes cluster, manage a cluster, deploy applications and databases, and keep everything up and running. What You Will Learn Understand Kubernetes architecture and cluster components Deploy your applications into Kubernetes clusters Manage your containers programmatically through API objects and controllers Deploy and operationalize SQL Server in Kubernetes Implement high-availability SQL Server scenarios on Kubernetes using Azure Arc-enabled Data Services Make use of Kubernetes deployments for Big Data Clusters Who This Book Is For DBAs and IT architects who are ready to begin planning their next-generation data platform and want to understand what it takes to run SQL Server in a container in Kubernetes. SQL Server on Kubernetes is an excellent choice for those who want to understand the big picture of why Kubernetes is the next-generation deployment method for SQL Server but also want to understand the internals, or the how, of deploying SQL Server in Kubernetes. When finished with this book, you will have the vision and skills to successfully architect, build and maintain a modern data platform deploying SQL Server on Kubernetes.

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. This third ebook in the series introduces Microsoft Azure Machine Learning, a service that a developer can use to build predictive analytics models (using training datasets from a variety of data sources) and then easily deploy those models for consumption as cloud web services. The ebook presents an overview of modern data science theory and principles, the associated workflow, and then covers some of the more common machine learning algorithms in use today. It builds a variety of predictive analytics models using real world data, evaluates several different machine learning algorithms and modeling strategies, and then deploys the finished models as machine learning web services on Azure within a matter of minutes. The ebook also expands on a working Azure Machine Learning predictive model example to explore the types of client and server applications you can create to consume Azure Machine Learning web services. Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the Microsoft Azure Essentials series.

Engineering MLOps will help you get to grips with ML lifecycle management and MLOps implementation for your organization. This book presents comprehensive insights into MLOps coupled with real-world

examples that will teach you how to write programs, train robust and scalable ML models, and build ML pipelines to train, deploy, and monitor ...

This workshop takes you through a Kubernetes-oriented application delivery pipeline in a practical way. You'll learn how to manage containers efficiently and scale and stabilize cloud-native applications using Kubernetes.

Learn how to deploy and test Linux-based Docker containers with the help of real-world use cases  
**Key Features** Understand how to make a deployment workflow run smoothly with Docker containers  
**Learn Docker and DevOps** concepts such as continuous integration and continuous deployment (CI/CD)  
**Gain insights** into using various Docker tools and libraries  
**Book Description** Docker is the de facto standard for containerizing apps, and with an increasing number of software projects migrating to containers, it is crucial for engineers and DevOps teams to understand how to build, deploy, and secure Docker environments effectively. Docker for Developers will help you understand Docker containers from scratch while taking you through best practices and showing you how to address security concerns. Starting with an introduction to Docker, you'll learn how to use containers and VirtualBox for development. You'll explore how containers work and develop projects within them after you've explored different ways to deploy and run containers. The book will also show you how to use Docker containers in production in both single-host set-ups and in clusters and deploy them using Jenkins, Kubernetes, and Spinnaker. As you advance, you'll get to grips with monitoring, securing, and scaling Docker using tools such as Prometheus and Grafana. Later, you'll be able to deploy Docker containers to a variety of environments, including the cloud-native Amazon Elastic Kubernetes Service (Amazon EKS), before finally delving into Docker security concepts and best practices. By the end of the Docker book, you'll be able to not only work in a container-driven environment confidently but also use Docker for both new and existing projects. What you will learn  
**Get up to speed** with creating containers and understand how they work  
**Package and deploy** your containers to a variety of platforms  
**Work with containers** in the cloud and on the Kubernetes platform  
**Deploy and then monitor** the health and logs of running containers  
**Explore best practices** for working with containers from a security perspective  
**Become familiar** with scanning containers and using third-party security tools and libraries  
**Who this book is for** If you're a software engineer new to containerization or a DevOps engineer responsible for deploying Docker containers in the cloud and building DevOps pipelines for container-based projects, you'll find this book useful. This Docker containers book is also a handy reference guide for anyone working with a Docker-based DevOps ecosystem or interested in understanding the security implications and best practices for working in container-driven environments.

If your job is deploying Windows 10, this book is for you. In this book, you will find practical guidance based on our many years of real-world experience deploying Windows around the world. Deployment Fundamentals, Volume 6, provides you with detailed step-by-step instructions, as well as decision-making guidance and explanations that provide answers on the Whys and Hows around Windows 10 OS deployment using Microsoft Deployment Toolkit (MDT) 2013 Update 2. The book also include many real-word notes and troubleshooting tips and tricks. To get you going as quickly possible, the book sample scripts contains a fully automated build of the entire environment, the hydration kit. That includes a fully configured Active Directory environment, including DNS, DHCP, WSUS, PXE, DFS-R Replication, SQL Express, and more. With this book, you will learn how to: Install and configure MDT 2013 Update 2 for production deployments - Build the supporting infrastructure - Use the script repository included with this book in your own environment - Create production-ready reference images for Windows 10 - Build a real-world deployment solution for Windows 10 - Add and deploy applications - Perform real-world driver management - Apply advanced configurations for CustomSettings.ini and deployment automation - Extend MDT using application wrappers, userexit scripts, and PowerShell - Prestage deployment settings using the MDT databases - Perform advanced configuration using web services - Deploy Office 2016, including the Click-to-Run Office 365 version

If your job is deploying Windows 8 (or Windows 7), this book is for you. In this book, you will find practical guidance based on our many years of real-world experience deploying Windows around the world. Deployment Fundamentals, Volume 4 provides you with detailed step-by-step instructions for all aspects of deploying Windows using Microsoft Deployment Toolkit (MDT) 2012 Update 1. Detailed explanations and real-world notes help you make the right decisions and understand the hows and whys of Windows OS deployment. Samples and scripts give you the tools you need for the best results.

A component in the America's Energy Future study, Electricity from Renewable Resources examines the technical potential for electric power generation with alternative sources such as wind, solar-photovoltaic, geothermal, solar-thermal, hydroelectric, and other renewable sources. The book focuses on those renewable sources that show the most promise for initial commercial deployment within 10 years and will lead to a substantial impact on the U.S. energy system. A quantitative characterization of technologies, this book lays out expectations of costs, performance, and impacts, as well as barriers and research and development needs. In addition to a principal focus on renewable energy technologies for power generation, the book addresses the challenges of incorporating such technologies into the power grid, as well as potential improvements in the national electricity grid that could enable better and more extensive utilization of wind, solar-thermal, solar photovoltaics, and other renewable technologies.

If you want to know how to deploy Windows 7, and content based on reality is more important than fancy poetry, we guess you found the right book. This book covers end to end deployment, inventory, applications (even ugly ones), real drivers, real hardware, real problems, real network environments and of course, real solutions. We will take you on a journey that covers MAP, ACT, WAIK, MDT and WDS. We will show you how to upgrade your skills so you too can take advantage of really knowing how to deploy Windows 7. Discover how to - Plan and prepare for a Windows 7 migration - Inventory hardware and applications, mitigate application compatibility issues - Create a rock solid deployment solution based on MDT 2010 Lite Touch - Create hardware independent images, find, extract, and inject drivers - Extend MDT 2010 with SQL databases, custom scripts and advanced rules - Install applications unattended, assign applications and settings dynamically - Customize and configure USMT 4.0. - Troubleshoot MDT 2010 Lite Touch Supporting Our Legacy Even though the core focus of this book is to help you deploy Windows 7 and migrate from Windows XP, we have added extra content that will teach you how to use the same deployment solution to also deploy Windows XP

The perimeter defenses guarding your network perhaps are not as secure as you think. Hosts behind the firewall have no defenses of their own, so when a host in the "trusted" zone is breached, access to your data center is not far behind. That's an all-too-familiar scenario today. With this practical book, you'll learn the principles behind zero trust architecture, along with details necessary to implement it. The Zero Trust Model treats all hosts as if they're internet-facing, and considers the entire network to be compromised and hostile. By taking this approach, you'll focus on building strong authentication, authorization, and encryption throughout, while providing compartmentalized access and better operational agility. Understand how perimeter-based defenses have evolved to become the broken model we use today  
**Explore two case studies** of zero trust in production networks on the client side (Google) and on the server side (PagerDuty)  
**Get example configuration** for open source tools that you can use to build a zero trust network  
**Learn how to migrate** from a perimeter-based network to a zero trust network in production

**Harness Kubernetes' extensibility** to deploy modern patterns and learn to effectively handle production issues  
**Key Features** Build and run efficient cloud-native applications on Kubernetes using industry best practices  
**Operate Kubernetes** in a production environment, troubleshoot clusters, and address security concerns  
**Deploy cutting-edge Kubernetes patterns** such as service mesh and serverless to your cluster  
**Book Description** Kubernetes is a modern cloud native container orchestration tool and one of the most popular open source projects worldwide. In addition to the technology being powerful and highly



flexible, Kubernetes engineers are in high demand across the industry. This book is a comprehensive guide to deploying, securing, and operating modern cloud native applications on Kubernetes. From the fundamentals to Kubernetes best practices, the book covers essential aspects of configuring applications. You'll even explore real-world techniques for running clusters in production, tips for setting up observability for cluster resources, and valuable troubleshooting techniques. Finally, you'll learn how to extend and customize Kubernetes, as well as gaining tips for deploying service meshes, serverless tooling, and more on your cluster. By the end of this Kubernetes book, you'll be equipped with the tools you need to confidently run and extend modern applications on Kubernetes. What you will learn Set up Kubernetes and configure its authentication Deploy your applications to Kubernetes Configure and provide storage to Kubernetes applications Expose Kubernetes applications outside the cluster Control where and how applications are run on Kubernetes Set up observability for Kubernetes Build a continuous integration and continuous deployment (CI/CD) pipeline for Kubernetes Extend Kubernetes with service meshes, serverless, and more Who this book is for This book is for developers, architects, DevOps engineers, or anyone interested in developing and managing cloud-native applications. Those already running cloud applications and looking for a better way to manage their platform or others interested in a career change given the recent popularity of Kubernetes will also find this book helpful. Some familiarity with cloud computing, containers and DevOps is required, but no prior knowledge of building production applications using Kubernetes is needed to get started with this book.

Create, deploy, and test your Python applications, analyses, and models with ease using Streamlit Key Features Learn how to showcase machine learning models in a Streamlit application effectively and efficiently Become an expert Streamlit creator by getting hands-on with complex application creation Discover how Streamlit enables you to create and deploy apps effortlessly Book Description Streamlit shortens the development time for the creation of data-focused web applications, allowing data scientists to create web app prototypes using Python in hours instead of days. Getting Started with Streamlit for Data Science takes a hands-on approach to helping you learn the tips and tricks that will have you up and running with Streamlit in no time. You'll start with the fundamentals of Streamlit by creating a basic app and gradually build on the foundation by producing high-quality graphics with data visualization and testing machine learning models. As you advance through the chapters, you'll walk through practical examples of both personal data projects and work-related data-focused web applications, and get to grips with more challenging topics such as using Streamlit Components, beautifying your apps, and quick deployment of your new apps. By the end of this book, you'll be able to create dynamic web apps in Streamlit quickly and effortlessly using the power of Python. What you will learn Set up your first development environment and create a basic Streamlit app from scratch Explore methods for uploading, downloading, and manipulating data in Streamlit apps Create dynamic visualizations in Streamlit using built-in and imported Python libraries Discover strategies for creating and deploying machine learning models in Streamlit Use Streamlit sharing for one-click deployment Beautify Streamlit apps using themes, Streamlit Components, and Streamlit sidebar Implement best practices for prototyping your data science work with Streamlit Who this book is for This book is for data scientists and machine learning enthusiasts who want to create web apps using Streamlit. Whether you're a junior data scientist looking to deploy your first machine learning project in Python to improve your resume or a senior data scientist who wants to use Streamlit to make convincing and dynamic data analyses, this book will help you get there! Prior knowledge of Python programming will assist with understanding the concepts covered.

Provides information on the features, functions, and implementation of Active Directory.

Accelerating Business and Mission Success with Cloud Computing. Key Features A step-by-step guide that will practically guide you through implementing Cloud computing services effectively and efficiently. Learn to choose the most ideal Cloud service model, and adopt appropriate Cloud design considerations for your organization. Leverage Cloud computing methodologies to successfully develop a cost-effective Cloud environment successfully. Book Description Cloud adoption is a core component of digital transformation. Scaling the IT environment, making it resilient, and reducing costs are what organizations want. Architecting Cloud Computing Solutions presents and explains critical Cloud solution design considerations and technology decisions required to choose and deploy the right Cloud service and deployment models, based on your business and technology service requirements. This book starts with the fundamentals of cloud computing and its architectural concepts. It then walks you through Cloud service models (IaaS, PaaS, and SaaS), deployment models (public, private, community, and hybrid) and implementation options (Enterprise, MSP, and CSP) to explain and describe the key considerations and challenges organizations face during cloud migration. Later, this book delves into how to leverage DevOps, Cloud-Native, and Serverless architectures in your Cloud environment and presents industry best practices for scaling your Cloud environment. Finally, this book addresses (in depth) managing essential cloud technology service components such as data storage, security controls, and disaster recovery. By the end of this book, you will have mastered all the design considerations and operational trades required to adopt Cloud services, no matter which cloud service provider you choose. What you will learn Manage changes in the digital transformation and cloud transition process Design and build architectures that support specific business cases Design, modify, and aggregate baseline cloud architectures Familiarize yourself with cloud application security and cloud computing security threats Design and architect small, medium, and large cloud computing solutions Who this book is for If you are an IT Administrator, Cloud Architect, or a Solution Architect keen to benefit from cloud adoption for your organization, then this book is for you. Small business owners, managers, or consultants will also find this book useful. No prior knowledge of Cloud computing is needed.

“We finally have the definitive treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document.” —Soumith Chintala, co-creator of PyTorch Key Features Written by PyTorch’s creator and key contributors Develop deep learning models in a familiar Pythonic way Use PyTorch to build an image classifier for cancer detection Diagnose problems with your neural network and improve training with data augmentation Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It’s great for building quick models, and it scales smoothly from laptop to enterprise. Deep Learning with PyTorch teaches you to create deep learning and neural network systems with PyTorch. This practical book gets you to work right away building a tumor image classifier from scratch. After covering the basics, you’ll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more sophisticated. All code samples are easy to explore in downloadable Jupyter notebooks. What You Will Learn Understanding deep learning data structures such as tensors and neural networks Best practices for the PyTorch Tensor API, loading data in Python,

and visualizing results Implementing modules and loss functions Utilizing pretrained models from PyTorch Hub Methods for training networks with limited inputs Sifting through unreliable results to diagnose and fix problems in your neural network Improve your results with augmented data, better model architecture, and fine tuning This Book Is Written For For Python programmers with an interest in machine learning. No experience with PyTorch or other deep learning frameworks is required. About The Authors Eli Stevens has worked in Silicon Valley for the past 15 years as a software engineer, and the past 7 years as Chief Technical Officer of a startup making medical device software. Luca Antiga is co-founder and CEO of an AI engineering company located in Bergamo, Italy, and a regular contributor to PyTorch. Thomas Viehmann is a Machine Learning and PyTorch speciality trainer and consultant based in Munich, Germany and a PyTorch core developer. Table of Contents PART 1 - CORE PYTORCH 1 Introducing deep learning and the PyTorch Library 2 Pretrained networks 3 It starts with a tensor 4 Real-world data representation using tensors 5 The mechanics of learning 6 Using a neural network to fit the data 7 Telling birds from airplanes: Learning from images 8 Using convolutions to generalize PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER 9 Using PyTorch to fight cancer 10 Combining data sources into a unified dataset 11 Training a classification model to detect suspected tumors 12 Improving training with metrics and augmentation 13 Using segmentation to find suspected nodules 14 End-to-end nodule analysis, and where to go next PART 3 - DEPLOYMENT 15 Deploying to production

Deployment Fundamentals, Vol. 6 Deploying Windows 10 Using Microsoft Deployment Toolkit

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).

Manage and administer your environment with ease About This Book Get your hands on learning the fundamentals to managing and administering Windows Server 2016. A step-by-step guide that will help you develop necessary skills and knowledge to manage an enterprise environment. Learn to implement strong networking and security practices into your Windows Server environment. Who This Book Is For If you are a System administrator or an IT professional interested in configuring and deploying Windows Server 2016 then, this book is for you. This book will also help readers clear the MTA: Windows Server Administration Fundamentals: 98-365 exam. What You Will Learn Become familiar with Windows Server OS concepts Learn how to install Windows Server 2016 Learn how to install device drivers and run services in Windows Server 2016 Learn how to add and install roles in Windows Server 2016 Learn how to apply GPO to your Windows Server 2016 environment Learn how to tune, maintain, update, and troubleshoot Windows Server 2016 Prepare for the MTA 98-365 exam In Detail Windows Server 2016 is the server operating system developed by Microsoft as part of the Windows NT family of operating systems, developed concurrently with Windows 10. This book is designed to get you started with Windows Server 2016. It will prepare you for your MTA 98-365 exam. With step-by-step instructions driven by targeted, easy-to-understand graphics, you will be able to understand the roles, features, functions, and quirks of Windows Server 2016. The book begins with the basics of Windows Server 2016, which includes the installation process and basic configuration. You will then move on to roles and features such as Active Directory, Hyper-V, Remote Access, Storage, and Printer. With the help of real-world examples, you will get to grips with the fundamentals of Windows Server 2016, which will help you solve difficult tasks the easy way. Later, the book also shows you maintenance and troubleshooting tasks, where with the help of best practices you will be able to manage Windows Server 2016 with ease. Each chapter ends with a questionnaire to ensure you make the best use of the content provided. By the end of this book, you will have the knowledge required to administer and manage Windows Server environments. Style and approach With step-by-step instructions driven by targeted, easy-to-understand graphics, this book explains and shows you how to use the roles and features, functions, and quirks of the Windows Server 2016. The chapters are presented in a step by step format accompanied by graphics wherever applicable.

An administrator's guide to deploying, configuring, securing, managing, and monitoring devices and client applications in an enterprise environment and passing Exam MD-100: Windows 10 easily Key Features Equip yourself to earn the Microsoft 365 Certified: Modern Desktop Administrator Associate certification Develop the skills needed to pass the Exam MD-100 and advance in your organization Learn to install Windows 10 operating systems and deploy and manage modern desktops and devices Book Description Microsoft Exam MD-100 Windows 10 Certification Guide offers complete, up-to-date coverage of the MD-100 exam, helping you take the exam with confidence, fully equipped to pass on the first attempt. Complete with a clear, succinct explanation of key concepts, self-assessment questions, tips, and mock exams with detailed answers, this MD-100 study guide covers different facets of upgrading and deploying Windows 10. You'll learn how to manage devices and data, configure connectivity, troubleshoot OS and app problems, and secure and maintain Windows 10 with updates and recovery. You'll also explore different Windows 10 editions and learn how to choose the best fit for your organization. This book will guide you in installing and configuring Windows 10 using different approaches. As you advance, you'll get to grips with managing local users and groups in Windows 10 and learn how to establish connections via different networks, such as a LAN and WLAN/Wi-Fi. By the end of this book, you'll have covered everything you need to pass the MD-100 certification exam and become a Microsoft 365 Certified: Modern Desktop Administrator Associate. What you will learn Deploy Windows 10 in a variety of ways Manage local users, groups, and devices Configure networking and remote connectivity Gain insights into Windows 10 maintenance Customize different Windows 10 features Become an expert at troubleshooting and recovery Get to grips with managing log files Monitor and manage Windows security Who this book is for This book is for both experienced and novice IT administrators who work with deploying, configuring, securing, and monitoring devices. Anyone with a working knowledge of managing identity, access,



policies, updates, and apps can take this exam. Although not necessary, experience with Microsoft 365 workloads, Windows 10 devices, and non-Windows devices will be helpful.

Implement flexible, efficient LISP-based overlays for cloud, data center, and enterprise The LISP overlay network helps organizations provide seamless connectivity to devices and workloads wherever they move, enabling open and highly scalable networks with unprecedented flexibility and agility. LISP Network Deployment and Troubleshooting is the definitive resource for all network engineers who want to understand, configure, and troubleshoot LISP on Cisco IOS-XE, IOS-XR and NX-OS platforms. It brings together comprehensive coverage of how LISP works, how it integrates with leading Cisco platforms, how to configure it for maximum efficiency, and how to address key issues such as scalability and convergence. Focusing on design and deployment in real production environments, three leading Cisco LISP engineers present authoritative coverage of deploying LISP, verifying its operation, and optimizing its performance in widely diverse environments. Drawing on their unsurpassed experience supporting LISP deployments, they share detailed configuration examples, templates, and best practices designed to help you succeed with LISP no matter how you intend to use it. This book is the Cisco authoritative guide to LISP protocol and is intended for network architects, engineers, and consultants responsible for implementing and troubleshooting LISP network infrastructures. It includes extensive configuration examples with troubleshooting tips for network engineers who want to improve optimization, performance, reliability, and scalability. This book covers all applications of LISP across various environments including DC, Enterprise, and SP. Review the problems LISP solves, its current use cases, and powerful emerging applications Gain in-depth knowledge of LISP's core architecture and components, including xTRs, PxTRs, MR/MS, ALT, and control plane message exchange Understand LISP software architecture on Cisco platforms Master LISP IPv4 unicast routing, LISP IPv6 routing, and the fundamentals of LISP multicast routing Implement LISP mobility in traditional data center fabrics, and LISP IP mobility in modern data center fabrics Plan for and deliver LISP network virtualization and support multitenancy Explore LISP in the Enterprise multihome Internet/WAN edge solutions Systematically secure LISP environments Troubleshoot LISP performance, reliability, and scalability

OpenStack was created with the audacious goal of being the ubiquitous software choice for building public and private cloud infrastructures. In just over a year, it's become the most talked-about project in open source. This concise book introduces OpenStack's general design and primary software components in detail, and shows you how to start using it to build cloud infrastructures. If you're a developer, technologist, or system administrator familiar with cloud offerings such as Rackspace Cloud or Amazon Web Services, Deploying OpenStack shows you how to obtain and deploy OpenStack software in a few controlled scenarios. Learn about OpenStack Compute (known as "Nova"), OpenStack Object Store ("Swift"), and OpenStack Image Service ("Glance") Understand common pitfalls in architecting, deploying, and implementing your cloud infrastructure with OpenStack Determine which version of the OpenStack code base best suits your deployment needs Define your deployment scenario and finalize key design choices Install Nova on a single node with either the StackOps distro or an Ubuntu package Be familiar with important configuration options and important administrative commands

This is the ultimate source for the working IT Pro who wants to develop and customize deployment solutions based on MDT 2013 and/or ConfigMgr 2012 R2. This is a HOW TO GET IT DONE book, solely focused on customizing deployment solutions with roots in the real world. In addition to well-proven step-by-step guides, you also get access to sample scripts and source code, allowing you to quickly test the solutions in your own environment. As far as the title goes, we don't mean you should steal things, literally. In this book, stealing is a metaphor for not reinventing the wheel. We don't want you to waste time developing solutions that are already available for free. Discover how to Setup MDT 2013 Lite Touch for OSD - Setup ConfigMgr 2012 R2 for OSD - Work with drivers in MDT 2013 and ConfigMgr 2012 R2 - Customize MDT 2013 Lite Touch and ConfigMgr 2012 R2 OSD - Select the right development tools for OSD customizations - Use version control for your scripts and source code - Advanced customization of the MDT 2013 Lite Touch wizard - Master the rules (CustomSettings.ini) - Create UserExit scripts - Configure user-driven installation (UDI) - Create and extend the MDT database - Use a custom frontend for the MDT database - Create and debug custom scripts and frontends - Create web services in both VB.NET and C# - Extend the MDT Monitoring feature - Setup and configure Orchestrator 2012 R2 - Integrate MDT 2013 and ConfigMgr 2012 R2 with Orchestrator 2012 R2

The Couchbase Autonomous Operator for Kubernetes is an application-specific controller that vastly reduces complexity, human error and manual management of database services, resulting in streamlined operations, more efficient consumption of resources and cloud portability. Couchbase Autonomous Operator extends the Kubernetes API to create, configure and manage instances of complex stateful applications on behalf of a Kubernetes user. It builds upon the basic Kubernetes resource and controller concepts, but also includes the domain or application-specific knowledge to automate common tasks better managed by computers. Whether an enterprise is using a single-provider, hybrid cloud or cross-cloud strategy, Couchbase Autonomous Operator is deployment agnostic, thereby enabling multi-cloud deployment and migration seamlessly. As Kubernetes continues to gain momentum and IT organizations increasingly adopt cloud computing and embrace newer technologies like microservices, mobile, IoT and more, Couchbase identified the following key roadblocks that hinder progress: - High operational costs: Manually deploying and managing hundreds of database instances across multiple geographies increases cost, effort, and complexity. - Vendor lock-in: A lack of standardization to ensure data can be moved freely and safely between cloud providers has made it difficult to switch providers quickly or work with multiple providers. - Delayed time to market: Customers with applications using microservice architectures have difficulties managing and scaling database clusters in siloed systems, extending development times and making it harder to support their applications. The Couchbase Autonomous Operator for Kubernetes was built to address and overcome these challenges for the enterprise by providing: - Automated operations: Beta users report reductions of up to 95 percent of the operational complexity, which lowers operational costs. - Cloud-agnostic deployment and management: Offers enterprise customers with multi-cloud strategies the ability to deploy, manage and move their applications to and from any cloud, at any time. - Unmatched agility and flexibility: Allows customers who have adopted microservice architectures to run their database next to their application, reducing the DevOps cycle and decreasing time to market.

The first major book on MDM written by Group Policy and Enterprise Mobility MVP and renowned expert, Jeremy Moskowitz! With Windows 10, organizations can create a consistent set of configurations across the modern enterprise desktop—for PCs, tablets, and phones—through the common Mobile Device Management (MDM) layer. MDM gives organizations a way to configure settings that achieve their administrative intent without exposing every possible setting. One benefit of MDM is that it enables organizations to apply broader privacy, security, and

application management settings through lighter and more efficient tools. MDM also allows organizations to target Internet-connected devices to manage policies without using Group Policy (GP) that requires on-premises domain-joined devices. This makes MDM the best choice for devices that are constantly on the go. With Microsoft making this shift to using Mobile Device Management (MDM), a cloud-based policy-management system, IT professionals need to know how to do similar tasks they do with Group Policy, but now using MDM, with its differences and pitfalls. • What is MDM (and how is it different than GP) • Setup Azure AD and MDM Auto-Enrollment • New PC Rollouts and Remote Refreshes: Autopilot and Configuration Designer • Enterprise State Roaming and OneDrive Documents Roaming Renowned expert and Microsoft Group Policy and Enterprise Mobility MVP Jeremy Moskowitz teaches you MDM fundamentals, essential troubleshooting techniques, and how to manage your enterprise desktops.

Streamline software development with Jenkins, the popular Java-based open source tool that has revolutionized the way teams think about Continuous Integration (CI). This complete guide shows you how to automate your build, integration, release, and deployment processes with Jenkins—and demonstrates how CI can save you time, money, and many headaches. Ideal for developers, software architects, and project managers, Jenkins: The Definitive Guide is both a CI tutorial and a comprehensive Jenkins reference. Through its wealth of best practices and real-world tips, you'll discover how easy it is to set up a CI service with Jenkins. Learn how to install, configure, and secure your Jenkins server Organize and monitor general-purpose build jobs Integrate automated tests to verify builds, and set up code quality reporting Establish effective team notification strategies and techniques Configure build pipelines, parameterized jobs, matrix builds, and other advanced jobs Manage a farm of Jenkins servers to run distributed builds Implement automated deployment and continuous delivery

Take a deep dive into the world of Windows desktop deployment using the Microsoft Deployment Toolkit About This Book Learn Microsoft Deployment Toolkit best practices and how to adopt them into your deployment project Troubleshoot task sequence errors and quickly resolve deployment blockers An easy-to-follow, in-depth guide to image creation, customization, and deployment of Windows Who This Book Is For This book is ideal for those deploying or planning to deploy Windows, in need of a top-to-bottom guide on project deployment. It is also an invaluable resource for consultants who need a top-to-bottom guide (or just a refresher) on project deployment. What You Will Learn Build a production-ready MDT environment Administer the environment for multiple users Customize your reference image with an MDT Task Sequence Create standalone media for offline deployments Customize the default user profile according to the version of Windows Get to grips with some troubleshooting steps and processes to reduce the time for recovery of a failed image Customize and create Windows images for deployment Discover useful tips and tricks to help save time in your deployment projects In Detail The Microsoft Deployment Toolkit (MDT) provides a comprehensive collection of tools, processes, and guidance for automating desktop and server deployments. It considerably reduces deployment time and standardizes desktop and server images. Moreover, MDT offers improved security and ongoing configuration management. Microsoft Deployment Toolkit is the official supported method of creating and customizing Windows images for deployment. Starting from scratch, this book walks you through the MDT setup, task sequence creation, and image deployment steps in detail. Breaking down the various MDT concepts, this book will give you a thorough understanding of the deployment process. Beginning with imaging concepts and theory, you will go on to build a Microsoft Deployment Toolkit environment. You will understand the intricacies of customizing the default user profile in different versions of Windows. Driver handling can be a challenge for larger organizations; we'll cover various driver concepts including mandatory driver profiles. ]Other important topics like the User State Migration Tool (USMT), configuration of XML files, and how to troubleshoot the USMT are also discussed in the book. We will cover the verifier and Windows Performance Toolkit for image validation scenarios. Furthermore, you will learn about MDT web frontend implementation as well as how to utilize the database capabilities of MDT for deeper deployment options. We'll wrap it all up with some links to resources for more information, blogs to watch, and useful Twitter handles. Style and approach This is a comprehensive guide written using a step-by-step approach. It begins with the basics and gradually moves on to the advanced topics MDT.

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

Kubernetes radically changes the way applications are built and deployed in the cloud. Since its introduction in 2014, this container orchestrator has become one of the largest and most popular open source projects in the world. The updated edition of this practical book shows developers and ops personnel how Kubernetes and container technology can help you achieve new levels of velocity, agility, reliability, and efficiency. Kelsey Hightower, Brendan Burns, and Joe Beda—who've worked on Kubernetes at Google and beyond—explain how this system fits into the lifecycle of a distributed application. You'll learn how to use tools and APIs to automate scalable distributed systems, whether it's for online services, machine learning applications, or a cluster of Raspberry Pi computers. Create a simple cluster to learn how Kubernetes works Dive into the details of deploying an application using Kubernetes Learn specialized objects in Kubernetes, such as DaemonSets, jobs, ConfigMaps, and secrets Explore deployments that tie together the lifecycle of a complete application Get practical examples of how to develop and deploy real-world applications in Kubernetes

This IBM® Redbooks® publication focuses on operational and managerial aspects for DataPower® appliance deployments. DataPower appliances provide functionality that crosses both functional and organizational boundaries, which introduces unique management and operational challenges. For example, a DataPower appliance can provide network functionality, such as load balancing, and at the same time, provide enterprise service bus (ESB) capabilities, such as transformation and intelligent content-based



routing. This IBM Redbooks publication provides guidance at both a general and technical level for individuals who are responsible for planning, installation, development, and deployment. It is not intended to be a "how-to" guide, but rather to help educate you about the various options and methodologies that apply to DataPower appliances. In addition, many chapters provide a list of suggestions.

Get up to date quickly with clear, expert coverage of SCCM 2016 Mastering System Center Configuration Manager provides comprehensive coverage of Microsoft's powerful network software deployment tool, with a practical hands-on approach. Written by Santos Martinez, Peter Daalmans, and Brett Bennett, this guide walks you through SCCM 2016 with in-depth explanations anchored in real-world applications to get you up to speed quickly. Whether you're planning a new installation or migrating from a previous version of Configuration Manager, this book provides clear instruction and expert insight to get the job done right. Fully aligned with the latest release, the discussion covers the newest tools and features with examples that illustrate utility in a variety of contexts. System Center Configuration Manager (formerly SMS) is one of Microsoft's flagship products; the 2016 release has been updated with better Windows 10 and Windows Server 2016 compatibility, improved tools for managing non-Microsoft mobile devices in the cloud, and more. This book provides start-to-finish coverage and expert guidance on everything you need to get your system up to date. Deploy software and operating systems Automate processes and customize configurations Monitor performance and troubleshoot issues Manage security in the cloud and on Virtual Machines SCCM 2016 improves your ability to handle the bring-your-own-device influx in managing mobile, streamlining the latest hiccup right into the everyday workflow. Mastering System Center Configuration Manager provides the practical coverage you need to get up and running seamlessly.

Ready to dive into smart contract development for the blockchain? With this practical guide, experienced engineers and beginners alike will quickly learn the entire process for building smart contracts for Ethereum—the open source blockchain-based distributed computing platform. You'll get up to speed with the fundamentals and quickly move into builder mode. Kevin Solorio, Randall Kanna, and Dave Hoover show you how to create and test your own smart contract, create a frontend for users to interact with, and more. It's the perfect resource for people who want to break into the smart contract field but don't know where to start. In four parts, this book helps you: Explore smart contract fundamentals, including the Ethereum protocol, Solidity programming language, and the Ethereum Virtual Machine Dive into smart contract development using Solidity and gain experience with Truffle framework tools for deploying and testing your contracts Use Web3 to connect your smart contracts to an application so users can easily interact with the blockchain Examine smart contract security along with free online resources for smart contract security auditing

A timely overview of a complete spectrum of technologies specifically designed for public safety communications as well as their deployment as management In our increasingly disaster-prone world, the need to upgrade and better coordinate our public safety networks combined with successful communications is more critical than ever. Fundamentals of Public Safety Networks and Critical Communications Systems fills a gap in the literature by providing a book that reviews a comprehensive set of technologies, from most popular to the most advanced communications technologies that can be applied to public safety networks and mission-critical communications systems. The book explores the technical and economic feasibility, design, application, and sustainable operation management of these vital networks and systems. Written by a noted expert in the field, the book provides extensive coverage of systems, services, end-user devices, and applications of public-safety services and technologies. The author explores the potential for advanced public safety systems, and this comprehensive text covers all aspects of the public safety and critical communications network field. This important book: Provides an introduction to and discussion of the common characteristics of our critical communications systems Presents a review of narrowband technologies such as Project 25, TETRA, and DMR as well as the broadband technologies such as the LTE technology Focuses on the emerging technologies that can be adopted to improve our vital communications systems Discusses deployment of such technologies, including economics and finance, planning and project management Provides, in detail, the issues and solutions related to the management of such communications networks Offers a complete list of standards documents Written for professionals in the industry, academics, and government and regulatory agencies, Fundamentals of Public Safety Networks and Critical Communications Systems offers a review of the most significant safety technologies, explores the application for advanced technologies, and examines the most current research.

Build scalable and production-ready infrastructure in Amazon Web Services with CloudFormation Key Features Leverage AWS CloudFormation templates to manage your entire infrastructure Get up and running with writing your infrastructure as code and automating your environment Simplify infrastructure management and increase productivity with AWS CloudFormation Book Description DevOps and the cloud revolution have forced software engineers and operations teams to rethink how to manage infrastructures. With this AWS book, you'll understand how you can use Infrastructure as Code (IaC) to simplify IT operations and manage the modern cloud infrastructure effectively with AWS CloudFormation. This comprehensive guide will help you explore AWS CloudFormation from template structures through to developing complex and reusable infrastructure stacks. You'll then delve into validating templates, deploying stacks, and handling deployment failures. The book will also show you how to leverage AWS CodeBuild and CodePipeline to automate resource delivery and apply continuous integration and continuous delivery (CI/CD) practices to the stack. As you advance, you'll learn how to generate templates on the fly using macros and create resources outside AWS with custom resources. Finally, you'll improve the way you manage the modern cloud in AWS by extending CloudFormation using AWS serverless application model (SAM) and AWS cloud development kit (CDK). By the end of this book, you'll have mastered all the major AWS CloudFormation concepts and be able to simplify infrastructure management. What you will learn Understand modern approaches to IaC Develop universal and reusable

CloudFormation templates Discover ways to apply continuous delivery with CloudFormation Implement IaC best practices for the AWS Cloud Provision massive applications across multiple regions and accounts Automate template generation and software provisioning for AWS Extend CloudFormation with custom resources and template macros Who this book is for If you are a developer who wants to learn how to write templates, a DevOps engineer interested in deployment and orchestration, or a solutions architect looking to understand the benefits of managing infrastructure with ease, this book is for you. Prior understanding of the AWS Cloud is necessary.

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