

Kib Micro Monitor Troubleshooting

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

This IBM® Redbooks® publication provides guidance about how to configure, monitor, and manage your IBM DS8880 storage systems to achieve optimum performance, and it also covers the IBM DS8870 storage system. It describes the DS8880 performance features and characteristics, including hardware-related performance features, synergy items for certain operating systems, and other functions, such as IBM Easy Tier® and the DS8000® I/O Priority Manager. The book also describes specific performance considerations that apply to particular host environments, including database applications. This book also outlines the various tools that are available for monitoring and measuring I/O performance for different server environments, and it describes how to monitor the performance of the entire DS8000 storage system. This book is intended for individuals who want to maximize the performance of their DS8880 and DS8870 storage systems and investigate the planning and monitoring tools that are available. The IBM DS8880 storage system features, as described in this book, are available for the DS8880 model family with R8.0 release bundles (Licensed Machine Code (LMC) level 7.8.0).

The first book to cover the LPIC-2 certification Linux allows developers to update source code freely, making it an excellent, low-cost, secure alternative to alternate, more expensive operating systems. It is for this reason that the demand for IT professionals to have an LPI certification is so strong. This study guide provides unparalleled coverage of the LPIC-2 objectives for exams 201 and 202. Clear and concise coverage examines all Linux administration topics while practical, real-world examples enhance your learning process. On the CD, you'll find the Sybex Test Engine, electronic flashcards, and a glossary containing the most important terms you need to understand.. Prepares you for exams 201 and 202 of the Linux Professional Institute Certification Offers clear, concise coverage on exam topics such as the Linux kernel, system startup, networking configuration, system maintenance, domain name server, file sharing, and more Addresses additional key topics for the exams including network client management, e-mail services, system security, and troubleshooting This must-have study guide serves as an invaluable roadmap to attaining LPI certification.

Linux® is being adopted by an increasing number of embedded systems developers, who have been won over by its sophisticated scheduling and networking, its cost-free license, its open development model, and the support offered by rich and powerful programming tools. While there is a great deal of hype surrounding the use of Linux in embedded systems, there is not a lot of practical information. Building Embedded Linux Systems is the first in-depth, hard-core guide to putting together an embedded system based on the Linux kernel. This indispensable book features arcane and previously undocumented procedures for: Building your own GNU development toolchain Using an efficient embedded development framework Selecting, configuring, building, and installing a target-specific kernel Creating a complete target root filesystem Setting up, manipulating, and using solid-state storage devices Installing and configuring a bootloader for the target Cross-compiling a slew of utilities and packages Debugging your embedded system using a plethora of tools and techniques Details are provided for various target architectures and hardware configurations, including a thorough review of Linux's support for embedded hardware. All explanations rely on the use of open source and free software packages. By presenting how to build the operating system components from pristine sources and how to find more documentation or help, this book greatly simplifies the task of keeping complete control over one's embedded operating system, whether it be for technical or sound financial reasons. Author Karim Yaghmour, a well-known designer and speaker who is responsible for the Linux Trace Toolkit, starts by discussing the strengths and weaknesses of Linux as an embedded operating system. Licensing issues are included, followed by a discussion of the basics of building embedded Linux systems. The configuration, setup, and use of over forty different open source and free software packages commonly used in embedded Linux systems are also covered. uClibc, BusyBox, U-Boot, OpenSSH, tftpd, tftp, strace, and gdb are among the packages discussed.

Businesses of all sizes are faced with the challenge of managing huge volumes of data that are becoming increasingly valuable. But storing this data can be costly, and extracting value from the data is becoming more and more difficult. IT organizations have limited resources and cannot afford to make investment mistakes. The IBM® Storwize® V3500 system provides a smarter solution that is affordable, simple, and efficient, which enables businesses to overcome their storage challenges. IBM Storwize V3500 is the most recent addition to the IBM Storwize family of disk systems. It delivers easy-to-use, entry-level configurations that are specifically designed to meet the modest budgets of small and medium-sized businesses. IBM Storwize V3500 features the following highlights: - Consolidate and share data with low cost iSCSI storage networking. - Deploy storage in minutes and perform storage management tasks quickly and easily through a breakthrough graphical user interface. - Experience peace of mind with proven IBM Storwize family high-availability data protection with snapshot technology and IBM warranty support. - Optimize efficiency by allocating only the amount of disk space needed at

the time it is required with high performance, thin-provisioning capabilities.

Xen allows administrators to run many virtual operating systems on one physical server, including Linux, BSD, OpenSolaris, and Microsoft Windows. In the process, users save money on hardware, maintenance, and electricity. Not only is Xen open source, the Xen hypervisor (the virtual machine monitor) is the best-performing hypervisor available. "The Book of Xen" explains everything a sysadmin needs to know to use this powerful technology, with coverage of installation, networking, virtualized storage, and managing guest and host operating systems. Written for administrators who have worked with *NIX before but who may be new to virtualization, "The Book of Xen" covers both the basics and the trickier aspects of Xen administration, like profiling and benchmarks, migration, XenSource administration, and hardware assisted virtualization (HVM).

Complete A+ Guide to IT Hardware and SoftwareAA CompTIA A+ Core 1 (220-1001) & CompTIA A+ Core 2 (220-1002) TextbookPearson IT Certification

Learn Raspberry Pi with Linux will tell you everything you need to know about the Raspberry Pi's GUI and command line so you can get started doing amazing things. You'll learn how to set up your new Raspberry Pi with a monitor, keyboard and mouse, and you'll discover that what may look unfamiliar in Linux is really very familiar. You'll find out how to connect to the internet, change your desktop settings, and you'll get a tour of installed applications. Next, you'll take your first steps toward being a Raspberry Pi expert by learning how to get around at the Linux command line. You'll learn about different shells, including the bash shell, and commands that will make you a true power user. Finally, you'll learn how to create your first Raspberry Pi projects: Making a Pi web server: run LAMP on your own network Making your Pi wireless: remove all the cables and retain all the functionality Making a Raspberry Pi-based security cam and messenger service: find out who's dropping by Making a Pi media center: stream videos and music from your Pi Raspberry Pi is awesome, and it's Linux. And it's awesome because it's Linux. But if you've never used Linux or worked at the Linux command line before, it can be a bit daunting. Raspberry Pi is an amazing little computer with tons of potential. And Learn Raspberry Pi with Linux can be your first step in unlocking that potential.

Master every topic on Red Hat's new RHCSA™ and RHCE® exams. Assess your knowledge and focus your learning. Get the practical workplace knowledge you need! Start-to-finish RHCSA™ and RHCE® preparation from leading Linux system administrator, IT trainer, and certification expert Damian Tommasino! Master every RHCSA™ and RHCE® topic! Red Hat Enterprise Linux 6 local and network installation System services, runlevels, and bootup Disks, partitions, and file systems, including LUKS encryption Networking Package management User administration Logging, monitoring, and automation Kernel updates and tuning Security, including SELinux, firewalls, and policies Remote access, including SSH Apache, Squid, DNS, DHCP, NTP, and email NFS and Samba Client and network troubleshooting KVM virtualization Test your knowledge, build your confidence, and succeed! 22 hands-on RHCSA™ and RHCE® Labs, each with multiple real-world tasks Downloadable troubleshooting scripts Practical tutorials and real-world tips Exam tips Red Hat Enterprise Linux 6 Command Quick Reference Exclusive Red Hat exam prep advice and task lists Two full length lab-based practice exams Damian Tommasino (RHCE, RHCSA, MCSA, CCNA, CCENT, MCP, Security+, Network+, A+) is a Linux system administrator at TradeCard and CEO of Modular Learning Inc., an online IT training company. He blogs on Red Hat, Linux, and security at Security Nut (<http://secnut.blogspot.com>), and actively contributes to the popular IT exam certification forums at techexams.net.

ALL YOU NEED TO KNOW TO SECURE LINUX SYSTEMS, NETWORKS, APPLICATIONS, AND DATA—IN ONE BOOK From the basics to advanced techniques: no Linux security experience necessary Realistic examples & step-by-step activities: practice hands-on without costly equipment The perfect introduction to Linux-based security for all students and IT professionals Linux distributions are widely used to support mission-critical applications and manage crucial data. But safeguarding modern Linux systems is complex, and many Linux books have inadequate or outdated security coverage. Linux Essentials for Cybersecurity is your complete solution. Leading Linux certification and security experts William "Bo" Rothwell and Dr. Denise Kinsey introduce Linux with the primary goal of enforcing and troubleshooting security. Their practical approach will help you protect systems, even if one or more layers are penetrated. First, you'll learn how to install Linux to achieve optimal security upfront, even if you have no Linux experience. Next, you'll master best practices for securely administering accounts, devices, services, processes, data, and networks. Then, you'll master powerful tools and automated scripting techniques for footprinting, penetration testing, threat detection, logging, auditing, software management, and more. To help you earn certification and demonstrate skills, this guide covers many key topics on CompTIA Linux+ and LPIC-1 exams. Everything is organized clearly and logically for easy understanding, effective classroom use, and rapid on-the-job training. LEARN HOW TO: Review Linux operating system components from the standpoint of security Master key commands, tools, and skills for securing Linux systems Troubleshoot common Linux security problems, one step at a time Protect user and group accounts with Pluggable Authentication Modules (PAM), SELinux, passwords, and policies Safeguard files and directories with permissions and attributes Create, manage, and protect storage devices: both local and networked Automate system security 24/7 by writing and scheduling scripts Maintain network services, encrypt network connections, and secure network-accessible processes Examine which processes are running—and which may represent a threat Use system logs to pinpoint potential vulnerabilities Keep Linux up-to-date with Red Hat or Debian software management tools Modify boot processes to harden security Master advanced techniques for gathering system information

For over a decade, Andrew "bunnie" Huang, one of the world's most esteemed hackers, has shaped the fields of hacking and hardware, from his cult-classic book Hacking the Xbox to the open-source laptop Novena and his mentorship of various hardware startups and developers. In The Hardware Hacker, Huang shares his experiences in manufacturing and open hardware, creating an illuminating and compelling career retrospective. Huang's journey starts with his first visit to the staggering electronics markets in Shenzhen, with booths overflowing with capacitors, memory chips, voltmeters, and possibility. He shares how he navigated the overwhelming world of Chinese factories to bring chumby, Novena, and Chibitronics to life, covering everything from creating a Bill of Materials to choosing the factory to best fit his needs. Through this collection of personal essays and interviews on topics ranging from the legality of reverse engineering to a comparison of intellectual property practices between China and the United States, bunnie weaves engineering, law, and society into the tapestry of open hardware. With highly detailed passages on the ins and outs of manufacturing and a comprehensive take on the issues associated with open source hardware, The Hardware Hacker is an invaluable resource

for aspiring hackers and makers.

"Two scoops of Django introduces you to various tips, tricks, patterns, code snippets, and techniques . . ."--Page 4 of cover.

Jump right into the pro-level guts of the Raspberry Pi with complete schematics and detailed hardware explanations as your guide. You'll tinker with runlevels, reporting voltages and temperatures, and work on a variety of project examples that you can tune for your own project ideas.. This book is fully updated for the latest Pi boards with three chapters dedicated to GPIO to help you master key aspects of the Raspberry Pi. You'll work with Linux driver information and explore the different Raspberry Pi models, including the Pi Zero, Pi Zero W, Pi 2, Pi3 B and Pi3 B+. You'll also review a variety of project examples that you can tune for your own project ideas. Other topics covered include the 1-Wire driver interface, how to configure a serial Linux console, and cross-compile code, including the Linux kernel. You'll find yourself turning to Advanced Raspberry Pi over and over again for both inspiration and reference. Whether you're an electronics professional, an entrepreneurial maker, or just looking for more detailed information on the Raspberry Pi, this is exactly the book for you. What You'll Learn Master I2C and SPI communications from Raspbian Linux in C Program USB peripherals, such as a 5-inch LCD panel with touch control and the Pi camera Study GPIO hardware, the sysfs driver interface and direct access from C programs Use and program the UART serial device. Who This Book Is For Advanced Raspberry Pi users who have experience doing basic projects and want to take their projects further.

The goal of this textbook is to provide enough background into the inner workings of the Internet to allow a novice to understand how the various protocols on the Internet work together to accomplish simple tasks, such as a search. By building an Internet with all the various services a person uses every day, one will gain an appreciation not only of the work that goes on unseen, but also of the choices made by designers to make life easier for the user. Each chapter consists of background information on a specific topic or Internet service, and where appropriate a final section on how to configure a Raspberry Pi to provide that service. While mainly meant as an undergraduate textbook for a course on networking or Internet protocols and services, it can also be used by anyone interested in the Internet as a step-by-step guide to building one's own Intranet, or as a reference guide as to how things work on the global Internet IBM® API Connect is an API management solution from IBM that offers capabilities to create, run, manage, and secure APIs and microservices. By using these capabilities, the full lifecycle of APIs for on-premises and cloud environments can be managed. This IBM Redpaper™ publication describes practical scenarios that show the API Connect capabilities for managing the full API life cycle, creating, running, securing, and managing the APIs. This Redpaper publication is targeted to users of an API Connect based API strategy, developers, IT architects, and technical evangelists. If you are not familiar with APIs or API Connect, we suggest that you read the Redpaper publication Getting Started with IBM API Connect: Concepts, Architecture and Strategy Guide, REDP-5349, before reading this publication.

Master IT hardware and software installation, configuration, repair, maintenance, and troubleshooting and fully prepare for the CompTIA® A+ Core 1 (220-1001) and Core 2 (220-1002) exams. This is your all-in-one, real-world, full-color guide to connecting, managing, and troubleshooting modern devices and systems in authentic IT scenarios. Its thorough instruction built on the CompTIA A+ Core 1 (220-1001) and Core 2 (220-1002) exam objectives includes coverage of Windows 10, Mac, Linux, Chrome OS, Android, iOS, cloud-based software, mobile and IoT devices, security, Active Directory, scripting, and other modern techniques and best practices for IT management. Award-winning instructor Cheryl Schmidt also addresses widely-used legacy technologies—making this the definitive resource for mastering the tools and technologies you'll encounter in real IT and business environments. Schmidt's emphasis on both technical and soft skills will help you rapidly become a well-qualified, professional, and customer-friendly technician. LEARN MORE QUICKLY AND THOROUGHLY WITH THESE STUDY AND REVIEW TOOLS: Learning Objectives and chapter opening lists of CompTIA A+ Certification Exam Objectives make sure you know exactly what you'll be learning, and you cover all you need to know Hundreds of photos, figures, and tables present information in a visually compelling full-color design Practical Tech Tips provide real-world IT tech support knowledge Soft Skills best-practice advice and team-building activities in every chapter cover key tools and skills for becoming a professional, customer-friendly technician Review Questions—including true/false, multiple choice, matching, fill-in-the-blank, and open-ended questions—carefully assess your knowledge of each learning objective Thought-provoking activities help students apply and reinforce chapter content, and allow instructors to “flip” the classroom if they choose Key Terms identify exam words and phrases associated with each topic Detailed Glossary clearly defines every key term Dozens of Critical Thinking Activities take you beyond the facts to deeper understanding Chapter Summaries recap key concepts for more efficient studying Certification Exam Tips provide insight into the certification exam and preparation process

Though Arista Networks is a relative newcomer in the data center and cloud networking markets, the company has already had considerable success. In this book, renowned consultant and technical author Gary Donahue (Network Warrior) provides an in-depth, objective guide to Arista's lineup of hardware, and explains why its network switches and Extensible Operating System (EOS) are so effective. Anyone with a CCNA or equivalent knowledge will benefit from this book, especially entrenched administrators, engineers, or architects tasked with building an Arista network. Is Arista right for your data center? Pick up this guide and find out. Topic highlights include: SysDB: the EOS system database that holds state, statuses, and variables Multichassis Link Aggregation (MLAG): for linking a port-channel to multiple switches instead of just one Latency Analyzer (LANZ): the interface-buffer troubleshooting tool with a reporting granularity of one millisecond VM Tracer: for adding, changing, and removing VLANs without human interaction Zero-Touch Provisioning (ZTP): for remote switch configuration Hardware advantages: including merchant silicon, low-latency networking, and power consumption Gotchas: issues with Arista switches or systems

This is the eBook version of the print title. Note that the eBook does not provide access to the practice test software that accompanies the print book. Learn, prepare, and practice for CompTIA Linux+ and LPIC-1 exam success with this CompTIA Authorized Cert Guide from Pearson IT Certification, a leader in IT Certification learning and a CompTIA Authorized Platinum Partner. Master CompTIA Linux+ LX0-103/LX0-104 and LPIC-1 101 & 102 (Version 4) exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks Learn from bonus video mentoring on DVD from Pearson's popular LPIC-1 101 and 102 LiveLessons CompTIA® Linux+ Cert Guide/LPIC-1 is a best-of-breed exam study guide. Long-time Linux insider Ross Brunson and Linux infrastructure expert Sean Walberg share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The book presents you with an organized test preparation routine through the use of proven series elements and techniques.

Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. The book also contains bonus video mentoring on DVD from Pearson's popular LPIC-1 101 and 102 LiveLessons. Go to the back pages of your eBook for instructions on how to access the personal video mentoring content. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this CompTIA-authorized study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The CompTIA-authorized study guide helps you master all the topics on the latest CompTIA Linux+ and LPIC-1 exams, including the following: Installing Linux The Boot Process Package Install and Management Basic Command Line Usage File Management Text Processing/Advanced Command Line Process Management Editing Text Partitions and Filesystems Permissions Customizing Shell Environments Shell Scripting Basic SQL Management Configuring User Interfaces and Desktops Managing Users and Groups Schedule and Automate Tasks Configuring Print and Email Services Logging and Time Services Networking Fundamentals Security Nutrition and Disease Management for Veterinary Technicians and Nurses, Second Edition offers a thorough update and significant expansion of this easy-to-use introduction to veterinary nutrition and diet, with broader species coverage, a new section on nutritional management of disease, and many new chapters. • Provides a complete reference to veterinary nutrition, from the fundamentals to feeding companion animals of any age and health status • Adds information on nutrition in birds, small mammals, and horses to the existing dog and cat coverage • • Presents a new section on managing disease through nutrition, with 10 new disease chapters • Offers additional new chapters on nutritional calculations, types of pet foods, raw food diets, additives and preservatives, nutrition myths, nutritional support, and assisted feeding • Includes access to a companion website with case studies, review questions and answers, and the figures from the book in PowerPoint

If you're looking for a scalable storage solution to accommodate a virtually endless amount of data, this book shows you how Apache HBase can fulfill your needs. As the open source implementation of Google's BigTable architecture, HBase scales to billions of rows and millions of columns, while ensuring that write and read performance remain constant. Many IT executives are asking pointed questions about HBase. This book provides meaningful answers, whether you're evaluating this non-relational database or planning to put it into practice right away. Discover how tight integration with Hadoop makes scalability with HBase easier Distribute large datasets across an inexpensive cluster of commodity servers Access HBase with native Java clients, or with gateway servers providing REST, Avro, or Thrift APIs Get details on HBase's architecture, including the storage format, write-ahead log, background processes, and more Integrate HBase with Hadoop's MapReduce framework for massively parallelized data processing jobs Learn how to tune clusters, design schemas, copy tables, import bulk data, decommission nodes, and many other tasks

Annotation A guide to the popular version control system, this book walks Git users through the source control implications of how a team is structured, and how the software is delivered to clients. The book then covers not just how to use popular work flow strategies, such as GitFlow, but why, and under what circumstances, these strategies should be applied.

The IBM® Hardware Management Console (HMC) provides to systems administrators a tool for planning, deploying, and managing IBM Power Systems™ servers. This IBM Redbooks® publication is an extension of IBM Power Systems HMC Implementation and Usage Guide, SG24-7491 and also merges updated information from IBM Power Systems Hardware Management Console: Version 8 Release 8.1.0 Enhancements, SG24-8232. It explains the new features of IBM Power Systems Hardware Management Console Version V8.8.1.0 through V8.8.4.0. The major functions that the HMC provides are Power Systems server hardware management and virtualization (partition) management. Further information about virtualization management is in the following publications: IBM PowerVM Virtualization Managing and Monitoring, SG24-7590 IBM PowerVM Virtualization Introduction and Configuration, SG24-7940 IBM PowerVM Enhancements What is New in 2013, SG24-8198 IBM Power Systems SR-IOV: Technical Overview and Introduction, REDP-5065 The following features of HMC V8.8.1.0 through HMC V8.8.4.0 are described in this book: HMC V8.8.1.0 enhancements HMC V8.8.4.0 enhancements System and Partition Templates HMC and IBM PowerVM® Simplification Enhancement Manage Partition Enhancement Performance and Capacity Monitoring HMC V8.8.4.0 upgrade changes

What could you do with data if scalability wasn't a problem? With this hands-on guide, you'll learn how Apache Cassandra handles hundreds of terabytes of data while remaining highly available across multiple data centers -- capabilities that have attracted Facebook, Twitter, and other data-intensive companies. Cassandra: The Definitive Guide provides the technical details and practical examples you need to assess this database management system and put it to work in a production environment. Author Eben Hewitt demonstrates the advantages of Cassandra's nonrelational design, and pays special attention to data modeling. If you're a developer, DBA, application architect, or manager looking to solve a database scaling issue or future-proof your application, this guide shows you how to harness Cassandra's speed and flexibility. Understand the tenets of Cassandra's column-oriented structure Learn how to write, update, and read Cassandra data Discover how to add or remove nodes from the cluster as your application requires Examine a working application that translates from a relational model to Cassandra's data model Use examples for writing clients in Java, Python, and C# Use the JMX interface to monitor a cluster's usage, memory patterns, and more Tune memory settings, data storage, and caching for better performance

Expert Consolidation in Oracle Database 12c is your key to reducing data management costs and increasing data center efficiency. Consolidation and cloud computing are converging trends sweeping the industry. The same technologies enabling cloud computing enable consolidation as well, leading to savings on all fronts from the amount of power used for servers to the amount of floor space consumed to the number of administrators needed to manage an installation. Yet the consolidation process can be a long and winding road. Success requires planning, and consideration to the impacts on supporting infrastructure. Expert Consolidation in Oracle Database 12c guides you through planning and implementing a consolidated Oracle Database installation using the many new features built into the latest release of Oracle's database management system. You'll learn to identify candidates for consolidation and to recognize instances that are best left stand-alone. The book guides in working with clustered systems and ASM storage in the consolidated environment. Focus is given to Oracle Enterprise Manager 12c Cloud Control as a monitoring and management dashboard. Always the goal is to drive towards a cost-effective environment that is efficient both in technology and people. Focuses on the new consolidation features in Oracle Database 12c Helps you evaluate and correctly decide when to consolidate Leads to cost savings and improved data center efficiency

Master building and integrating secure private networks using OpenVPN About This Book Discover how to configure and set up a secure OpenVPN Enhance user experience by using multiple authentication methods Delve into better reporting, monitoring, logging, and control with OpenVPN Who This Book Is For If you are familiar with TCP/IP networking and general system administration, then this book is ideal for you. Some knowledge and understanding of core elements and applications related to Virtual Private Networking is assumed. What You Will Learn Identify different VPN protocols (IPSec, PPTP, OpenVPN) Build your own PKI and manage certificates Deploy your VPN on various devices like PCs, mobile phones, tablets, and more Differentiate between the routed and bridged network Enhance your VPN with monitoring and logging Authenticate against third-party databases like LDAP or the Unix password file Troubleshoot an OpenVPN setup that is not performing correctly In Detail Security on the internet is increasingly vital to both businesses and individuals. Encrypting network traffic using Virtual Private Networks is one method to enhance security. The internet, corporate, and "free internet" networks grow more hostile every day. OpenVPN, the most widely used open source VPN package, allows you to create a secure network across these systems, keeping your private data secure. The main advantage of using OpenVPN is its portability, which allows it to be embedded into several systems. This book is an advanced guide that will help you build secure Virtual Private Networks using OpenVPN.

You will begin your journey with an exploration of OpenVPN, while discussing its modes of operation, its clients, its secret keys, and their format types. You will explore PKI: its setting up and working, PAM authentication, and MTU troubleshooting. Next, client-server mode is discussed, the most commonly used deployment model, and you will learn about the two modes of operation using "tun" and "tap" devices. The book then progresses to more advanced concepts, such as deployment scenarios in tun devices which will include integration with back-end authentication, and securing your OpenVPN server using iptables, scripting, plugins, and using OpenVPN on mobile devices and networks. Finally, you will discover the strengths and weaknesses of the current OpenVPN implementation, understand the future directions of OpenVPN, and delve into the troubleshooting techniques for OpenVPN. By the end of the book, you will be able to build secure private networks across the internet and hostile networks with confidence. Style and approach An easy-to-follow yet comprehensive guide to building secure Virtual Private Networks using OpenVPN. A progressively complex VPN design is developed with the help of examples. More advanced topics are covered in each chapter, with subjects grouped according to their complexity, as well as their utility.

Use Windows PowerShell Desired State Configuration (DSC) to configure your infrastructure on-premises and in the cloud. In an environment where changes and deployments are happening all the time, DSC makes the necessary adjustments to the system so you don't have to. Pro PowerShell Desired State Configuration shows you how. PowerShell Desired State Configuration (DSC) is a powerful configuration management platform that makes it easier than ever to perform configuration management of your infrastructure, whether on-premises or in the cloud. With Pro PowerShell Desired State Configuration, Ravikanth Chaganti revises and significantly expands his previous edition, bringing you a complete in-depth reference for applying this evolving technology in your day-to-day work. What's new in this edition? Get up-to-date, in-depth guidance on DSC in the data center Understand the central role that DSC plays in DevOps today Integrate DSC into build and release management tools Learn to think and act like a developer when automating your configuration management, creating a testable, robust process that you can use again and again Find out why and how DSC has an important role to play in public and private cloud deployments Apply DSC in the cloud with Microsoft Azure or Amazon Web Services or Google Cloud Platform Who This Book Is For IT administrators, developers and DevOps engineers working in Windows-based data center environments. With a little prior PowerShell scripting experience, this book can be used as an in-depth reference to creating, customizing, and extending DSC in Windows. IT administrators with limited scripting experience will also find this book a useful overview of what DSC offers and how to use DSC resources to automate configuration management and deployment.

Provides a solid foundation for those considering a career in IT—covers the objectives of the new Linux Essentials Exam 010-160 v1.6 Linux is a secure, reliable, open source alternative to costly operating systems such as Microsoft Windows. As large organizations worldwide continue to add Linux servers, the need for IT professionals skilled in Linux continues to grow. The LPI Linux Essentials Study Guide is a valuable resource for anyone preparing to take the new Linux Essentials Exam—the entry-level certification from The Linux Professional Institute (LPI) which validates knowledge of Linux concepts and applications. Written by recognized experts on Linux and open source technologies, this accessible, user-friendly guide covers desktop skills, the command line, directories and files, networks, scripting, security, users and permissions, and much more. Clear, concise chapters provide numerous hands-on tutorials, real-world examples, color illustrations, and practical end-of-chapter exercises and review questions. An ideal introduction for those new to Linux or considering a career in IT, this guide helps readers: Learn the operation and components of Linux desktops and servers Understand open source software, licensing, and applications Configure networks, security, cloud services, storage, and devices Create users and groups and set permissions and ownership Use the command line and build automation scripts LPI Linux Essentials Study Guide: Exam 010 v1.6 is perfect for anyone beginning a career in IT, newcomers to Linux, students in computer courses, and system administrators working with other operating systems wanting to learn more about Linux and other open source solutions.

Learn Azure in a Month of Lunches, Second Edition, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-on lab so you can try out and lock in your new skills. Summary You can be incredibly productive with Azure without mastering every feature, function, and service. Learn Azure in a Month of Lunches, Second Edition gets you up and running quickly, teaching you the most important concepts and tasks in 21 practical bite-sized lessons. As you explore the examples, exercises, and labs, you'll pick up valuable skills immediately and take your first steps to Azure mastery! This fully revised new edition covers core changes to the Azure UI, new Azure features, Azure containers, and the upgraded Azure Kubernetes Service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Microsoft Azure is vast and powerful, offering virtual servers, application templates, and prebuilt services for everything from data storage to AI. To navigate it all, you need a trustworthy guide. In this book, Microsoft engineer and Azure trainer Iain Foulds focuses on core skills for creating cloud-based applications. About the book Learn Azure in a Month of Lunches, Second Edition, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-on lab so you can try out and lock in your new skills. What's inside Understanding Azure beyond point-and-click Securing applications and data Automating your environment Azure services for machine learning, containers, and more About the reader This book is for readers who can write and deploy simple web or client/server applications. About the author Iain Foulds is an engineer and senior content developer with Microsoft. Table of Contents PART 1 - AZURE CORE SERVICES 1 Before you begin 2 Creating a virtual machine 3 Azure Web Apps 4 Introduction to Azure Storage 5 Azure Networking basics PART 2 - HIGH AVAILABILITY AND SCALE 6 Azure Resource Manager 7 High availability and redundancy 8 Load-balancing applications 9 Applications that scale 10 Global databases with Cosmos DB 11 Managing network traffic and routing 12 Monitoring and troubleshooting PART 3 - SECURE BY DEFAULT 13 Backup, recovery, and replication 14 Data encryption 15 Securing information with Azure Key Vault 16 Azure Security Center and updates PART 4 - THE COOL STUFF 17 Machine learning and artificial intelligence 18 Azure Automation 19 Azure containers 20 Azure and the Internet of Things 21 Serverless computing

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This IBM® Redbooks® publication is a comprehensive guide that covers cloud security considerations for IBM Power Systems™. The first objectives of this book are to examine how Power Systems can fit into the current and developing cloud computing landscape and to outline the proven Cloud Computing Reference Architecture (CCRA) that IBM employs in building private and hybrid cloud environments. The book then looks more closely at the underlying technology and hones in on the security aspects for the following subsystems: IBM Hardware Management Console IBM PowerVM IBM PowerKVM IBM PowerVC IBM Cloud Manager with OpenStack IBM Bluemix This publication is for professionals who are involved in security design with regard to planning and deploying cloud infrastructures using IBM Power Systems.

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IBM® Cloud Private is an application platform for developing and managing containerized applications across hybrid cloud environments, on-premises and public clouds. It is an integrated environment for managing containers that includes the container orchestrator Kubernetes, a private image registry, a management console, and monitoring frameworks. This IBM Redbooks covers tasks performed by IBM Cloud Private system administrators such as installation for high availability, configuration, backup and restore, using persistent volumes, networking, security, logging and monitoring. Istio integration, troubleshooting and so on. As part of this project we also developed several code examples and you can download those from the IBM Redbooks GitHub location: <https://github.com/IBMRedbooks>. The authors team has many years of experience in implementing IBM Cloud Private and other cloud solutions in production environments, so throughout this document we took the approach of providing you the recommended practices in those areas. If you are an IBM Cloud Private system administrator, this book is for you. If you are developing applications on IBM Cloud Private, you can see the IBM Redbooks publication IBM Cloud Private Application Developer's Guide, SG24-8441.

Every enterprise application creates data, whether it's log messages, metrics, user activity, outgoing messages, or something else. And how to move all of this data becomes nearly as important as the data itself. If you're an application architect, developer, or production engineer new to Apache Kafka, this practical guide shows you how to use this open source streaming platform to handle real-time data feeds. Engineers from Confluent and LinkedIn who are responsible for developing Kafka explain how to deploy production Kafka clusters, write reliable event-driven microservices, and build scalable stream-processing applications with this platform. Through detailed examples, you'll learn Kafka's design principles, reliability guarantees, key APIs, and architecture details, including the replication protocol, the controller, and the storage layer. Understand publish-subscribe messaging and how it fits in the big data ecosystem. Explore Kafka producers and consumers for writing and reading messages Understand Kafka patterns and use-case requirements to ensure reliable data delivery Get best practices for building data pipelines and applications with Kafka Manage Kafka in production, and learn to perform monitoring, tuning, and maintenance tasks Learn the most critical metrics among Kafka's operational measurements Explore how Kafka's stream delivery capabilities make it a perfect source for stream processing systems

Many organizations must protect their mission-critical applications in production, but security threats can also surface during the development and pre-production phases. Also, during deployment and production, insiders who manage the infrastructure that hosts critical applications can pose a threat given their super-user credentials and level of access to secrets or encryption keys. Organizations must incorporate secure design practices in their development operations and embrace DevSecOps to protect their applications from the vulnerabilities and threat vectors that can compromise their data and potentially threaten their business. IBM® Cloud Hyper Protect Services provide built-in data-at-rest and data-in-flight protection to help developers easily build secure cloud applications by using a portfolio of cloud services that are powered by IBM LinuxONE. The LinuxONE platform ensures that client data is always encrypted, whether at rest or in transit. This feature gives customers complete authority over sensitive data and associated workloads (which restricts access, even for cloud admins) and helps them meet regulatory compliance requirements. LinuxONE also allows customers to build mission-critical applications that require quick time to market and dependable rapid expansion. The purpose of this IBM Redbooks® publication is to: Introduce the IBM Hyper Protect Services that are running on IBM LinuxONE on the IBM Cloud™ and on-premises Provide high-level design architectures Describe deployment best practices Provide guides to getting started and examples of the use of the Hyper Protect Services The target audience for this book is IBM Hyper Protect Virtual Services technical specialists, IT architects, and system administrators.

This book is jointly compiled by Chinese Academy of Sciences, Cyberspace Administration of China, Ministry of Education of the People's Republic of China, Ministry of Science and Technology of the People's Republic of China, Chinese Academy of Social Sciences, National Natural Science Foundation of China and Chinese Academy of Agricultural Sciences. Over the past several years, Chinese scholars have contributed numerous research works on the development of Chinese scientific information and technology, and produced a range of outstanding achievements. Focusing on the main topic of e-Science, this book explores the forefront of science and technology around the globe, the major demands in China and the main fields in China's economic development. Furthermore, it reviews the major achievements and the typical cases in China's e-Science research. It provides a valuable reference source for future technological innovations and will introduce researchers and students in the area of e-Science to the latest results in China.

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