

Practice Of Cloud System Administration The Designing And Operating Large Distributed Systems Volume 2

Consumer health websites have garnered considerable media attention, but only begin to scratch the surface of the more pervasive transformations the Internet could bring to health and health care. Networking Health examines ways in which the Internet may become a routine part of health care delivery and payment, public health, health education, and biomedical research. Building upon a series of site visits, this book: Weighs the role of the Internet versus private networks in uses ranging from the transfer of medical images to providing video-based medical consultations at a distance. Reviews technical challenges in the areas of quality of service, security, reliability, and access, and looks at the potential utility of the next generation of online technologies. Discusses ways health care organizations can use the Internet to support their strategic interests and explores barriers to a broader deployment of the Internet. Recommends steps that private and public sector entities can take to enhance the capabilities of the Internet for health purposes and to prepare health care organizations to adopt new Internet-based applications.

If you're a Unix system administrator, then the information you need every day just to get your job done could fill a book--a very large book. But, practically speaking, you don't want to stop and thumb through a weighty volume each time a problem arises. Your answer is the Essential System Administration Pocket Reference, the only system administration reference that fits in your pocket. Concise and easy-to-use, this little book is the portable companion to the classic Essential System Administration by Aileen Frisch. The Essential System Administration Pocket Reference is a quick reference to all the fundamental and essential tasks required to run such divergent Unix systems as Solaris, Linux, AIX, BSD, SuSe, Red Hat, and more. Beginners and experienced administrators alike will quickly be able to apply its principles and advice to solve everyday problems. The book is divided into three parts: Commands, Syntax and Their Applications, Configuration Files and Formats, and Operating System Specific Information. The information in this book is a must-have for any administrator or user of a Unix system. O'Reilly's Pocket References have become a favorite among technology professionals everywhere. By providing a wealth of important details in a concise, well-organized format, these handy books deliver just what you need to complete the

task at hand. When you've reached a sticking point and need to get to a solution quickly, the new Essential System Administration Pocket Reference is the book you'll want to have.

A guide for administrators running Unix, Windows NT, or Mac OS platforms demonstrates the use of the programming language in file system management, directory services, user administration, log files, and security and network monitoring

A web application involves many specialists, but it takes people in web ops to ensure that everything works together throughout an application's lifetime. It's the expertise you need when your start-up gets an unexpected spike in web traffic, or when a new feature causes your mature application to fail. In this collection of essays and interviews, web veterans such as Theo Schlossnagle, Baron Schwartz, and Alistair Croll offer insights into this evolving field. You'll learn stories from the trenches--from builders of some of the biggest sites on the Web--on what's necessary to help a site thrive. Learn the skills needed in web operations, and why they're gained through experience rather than schooling Understand why it's important to gather metrics from both your application and infrastructure Consider common approaches to database architectures and the pitfalls that come with increasing scale Learn how to handle the human side of outages and degradations Find out how one company avoided disaster after a huge traffic deluge Discover what went wrong after a problem occurs, and how to prevent it from happening again

Contributors include: John Allspaw Heather Champ Michael Christian Richard Cook Alistair Croll Patrick Debois Eric Florenzano Paul Hammond Justin Huff Adam Jacob Jacob Loomis Matt Massie Brian Moon Anoop Nagwani Sean Power Eric Ries Theo Schlossnagle Baron Schwartz Andrew Shafer

Linux in Action

An Enterprise Perspective on Risks and Compliance

Designing Distributed Systems

PRINCIPLES OF NETWORK & SYSTEM ADMIN. 2nd Ed.

The DevOps Handbook

The Practice of System and Network Administration

The Complete Guide to Practices and Procedures

The industry standard for best practices in system administration, updated to address today's challenges.

A practical guide to making the best use of the OpenShift container platform based on the real-

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life experiences, practices, and culture within Red Hat Open Innovation Labs Key Features Learn how modern software companies deliver business outcomes that matter by focusing on DevOps culture and practices Adapt Open Innovation Labs culture and foundational practices from the Open Practice Library Implement a metrics-driven approach to application, platform, and product, understanding what to measure and how to learn and pivot Book Description DevOps Culture and Practice with OpenShift features many different real-world practices - some people-related, some process-related, some technology-related - to facilitate successful DevOps, and in turn OpenShift, adoption within your organization. It introduces many DevOps concepts and tools to connect culture and practice through a continuous loop of discovery, pivots, and delivery underpinned by a foundation of collaboration and software engineering. Containers and container-centric application lifecycle management are now an industry standard, and OpenShift has a leading position in a flourishing market of enterprise Kubernetes-based product offerings. DevOps Culture and Practice with OpenShift provides a roadmap for building empowered product teams within your organization. This guide brings together lean, agile, design thinking, DevOps, culture, facilitation, and hands-on technical enablement all in one book. Through a combination of real-world stories, a practical case study, facilitation guides, and technical implementation details, DevOps Culture and Practice with OpenShift provides tools and techniques to build a DevOps culture within your organization on Red Hat's OpenShift Container Platform. What you will learn Implement successful DevOps practices and in turn OpenShift within your organization Deal with segregation of duties in a continuous delivery world Understand automation and its significance through an application-centric view Manage continuous deployment strategies, such as A/B, rolling, canary, and blue-green Leverage OpenShift's Jenkins capability to execute continuous integration pipelines Manage and separate configuration from static runtime software Master communication and collaboration enabling delivery of superior software products at scale through continuous discovery and continuous delivery Who this book is for This book is for anyone with an interest in DevOps practices with OpenShift or other Kubernetes platforms. This DevOps book gives software architects, developers, and infra-ops engineers a practical understanding of OpenShift, how to use it efficiently for the effective deployment of application architectures, and how to collaborate with users and stakeholders to deliver business-impacting outcomes.

Six years ago, Infrastructure as Code was a new concept. Today, as even banks and other

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conservative organizations plan moves to the cloud, development teams for companies worldwide are attempting to build large infrastructure codebases. With this practical book, Kief Morris of ThoughtWorks shows you how to effectively use principles, practices, and patterns pioneered by DevOps teams to manage cloud-age infrastructure. Ideal for system administrators, infrastructure engineers, software developers, team leads, and architects, this updated edition demonstrates how you can exploit cloud and automation technology to make changes easily, safely, quickly, and responsibly. You'll learn how to define everything as code and apply software design and engineering practices to build your system from small, loosely coupled pieces. This book covers:

- Foundations: Use Infrastructure as Code to drive continuous change and raise the bar of operational quality, using tools and technologies to build cloud-based platforms
- Working with infrastructure stacks: Learn how to define, provision, test, and continuously deliver changes to infrastructure resources
- Working with servers and other platforms: Use patterns to design provisioning and configuration of servers and clusters
- Working with large systems and teams: Learn workflows, governance, and architectural patterns to create and manage infrastructure elements

Data is at the center of many challenges in system design today. Difficult issues need to be figured out, such as scalability, consistency, reliability, efficiency, and maintainability. In addition, we have an overwhelming variety of tools, including relational databases, NoSQL datastores, stream or batch processors, and message brokers. What are the right choices for your application? How do you make sense of all these buzzwords? In this practical and comprehensive guide, author Martin Kleppmann helps you navigate this diverse landscape by examining the pros and cons of various technologies for processing and storing data. Software keeps changing, but the fundamental principles remain the same. With this book, software engineers and architects will learn how to apply those ideas in practice, and how to make full use of data in modern applications. Peer under the hood of the systems you already use, and learn how to use and operate them more effectively

- Make informed decisions by identifying the strengths and weaknesses of different tools
- Navigate the trade-offs around consistency, scalability, fault tolerance, and complexity
- Understand the distributed systems research upon which modern databases are built
- Peek behind the scenes of major online services, and learn from their architectures

DevOps Culture and Practice with OpenShift

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The World Book Encyclopedia
Google Cloud Platform Administration
Infrastructure as Code
An Algorithmic Approach, Second Edition
Database Administration
Practical JIRA Administration

The Practice of Cloud System Administration, Volume 2, focuses on 'distributed' or 'cloud' computing and brings a DevOps/SRE sensibility to the practice of system administration. Unsatisfied with books that cover either design or operations in isolation, the authors created this authoritative reference centered on a comprehensive approach. Case studies and examples from Google, Etsy, Twitter, Facebook, Netflix, Amazon, and other industry giants are explained in practical ways that are useful to all enterprises. The new companion to the best-selling first volume, The Practice of System and Network Administration, Second Edition, this guide offers expert coverage of the following and many other crucial topics: Designing and building modern web and distributed systems; Fundamentals of large system design; Understand the new software engineering implications of cloud administration; Make systems that are resilient to failure and grow and scale dynamically; Implement DevOps principles and cultural changes; IaaS/PaaS/SaaS and virtual platform selection; Operating and running systems using the latest DevOps/SRE strategies; Upgrade production systems with zero downtime; What and how to automate, how to decide what not to automate; On-call best practices that improve uptime; Why distributed systems require fundamentally different system administration techniques; Identify and resolve resiliency problems before they surprise you; Assessing and evaluating your team's operational effectiveness; Manage the scientific process of continuous improvement; A forty-page, pain-free assessment system you can start using today"--Publisher's description.

A practical guide for meeting the challenges of planning and designing a network Network design has to be logical and efficient, decisions have to be made about what services are needed, and security concerns must be addressed. Focusing on general principles, this book will help make the process of setting up, configuring, and maintaining a network much easier. It outlines proven procedures for working in a global community of networked machines, and provides practical illustrations of technical specifics. Readers will also find broad coverage of Linux and other Unix versions, Windows(r), Macs, and mainframes. The author includes discussions on the social and ethical aspects of system administration.

With 28 new chapters, the third edition of The Practice of System and Network Administration innovates yet again! Revised with thousands of updates and clarifications based on reader feedback, this new edition also incorporates DevOps strategies even for non-DevOps environments. Whether you use Linux, Unix, or Windows, this new edition describes the essential practices previously handed down only from mentor to protégé. This wonderfully lucid, often funny cornucopia of information introduces beginners to advanced frameworks valuable for their entire career, yet is structured to help even experts through difficult projects. Other books tell you what commands to type. This book teaches you the cross-platform strategies that are timeless! DevOps techniques: Apply DevOps principles to enterprise IT infrastructure, even in environments without developers Game-changing strategies: New ways to deliver results faster with less stress Fleet management: A comprehensive guide to managing your fleet of desktops, laptops, servers and mobile devices Service management: How to design, launch, upgrade and migrate services Measurable improvement: Assess your operational effectiveness; a forty-page, pain-free assessment system you can start using today to raise the quality of all services Design guides: Best practices for networks, data centers, email, storage, monitoring, backups and more Management skills: Organization design, communication, negotiation, ethics, hiring and firing, and more Have you ever had any of these problems? Have you been surprised to discover your backup tapes are blank? Ever spent a year launching a new service only to be told the users hate it? Do you have more incoming support requests than you can handle? Do you spend more time fixing problems than building the next awesome thing? Have you suffered from a botched migration of thousands of users to a new service? Does your company rely on a computer that, if it died, can't be rebuilt? Is your network a fragile mess that breaks any time you try to improve it? Is there a periodic "hell month" that happens twice a year? Twelve times a year? Do you find out about problems when your users call you to complain? Does your corporate "Change Review Board" terrify you? Does each division of your company have their own broken way of doing things? Do you fear that automation will replace you, or break more than it fixes? Are you underpaid and overworked? No vague "management speak" or empty platitudes. This comprehensive guide provides real solutions that prevent these problems and more!

Distributed and Cloud Computing: From Parallel Processing to the Internet of Things offers complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. It is the first modern, up-to-date distributed systems textbook; it explains how to create high-performance, scalable, reliable systems, exposing

the design principles, architecture, and innovative applications of parallel, distributed, and cloud computing systems. Topics covered by this book include: facilitating management, debugging, migration, and disaster recovery through virtualization; clustered systems for research or ecommerce applications; designing systems as web services; and social networking systems using peer-to-peer computing. The principles of cloud computing are discussed using examples from open-source and commercial applications, along with case studies from the leading distributed computing vendors such as Amazon, Microsoft, and Google. Each chapter includes exercises and further reading, with lecture slides and more available online. This book will be ideal for students taking a distributed systems or distributed computing class, as well as for professional system designers and engineers looking for a reference to the latest distributed technologies including cloud, P2P and grid computing. Complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. Includes case studies from the leading distributed computing vendors: Amazon, Microsoft, Google, and more. Explains how to use virtualization to facilitate management, debugging, migration, and disaster recovery. Designed for undergraduate or graduate students taking a distributed systems course—each chapter includes exercises and further reading, with lecture slides and more available online.

Linux Administration Handbook

Modern System Administration

Theory and Practice

Perl for System Administration

The Big Ideas Behind Reliable, Scalable, and Maintainable Systems

How Google Runs Production Systems

Making Servers Work

Increase profitability, elevate work culture, and exceed productivity goals through DevOps practices. More than ever, the effective management of technology is critical for business competitiveness. For decades, technology leaders have struggled to balance agility, reliability, and security. The consequences of failure have never been greater—whether it's the healthcare.gov debacle, cardholder data breaches, or missing the boat with Big Data in the cloud. And yet, high performers using DevOps principles, such as Google, Amazon, Facebook, Etsy, and Netflix, are routinely and reliably deploying code

into production hundreds, or even thousands, of times per day. Following in the footsteps of The Phoenix Project, The DevOps Handbook shows leaders how to replicate these incredible outcomes, by showing how to integrate Product Management, Development, QA, IT Operations, and Information Security to elevate your company and win in the marketplace. Make the most of GCP's offerings to manage your data center workload and optimize deployments

Key Features Discover new techniques to administer, manage, and deploy applications on GCP Understand effective solutions for storing, retrieving, and deploying your container images Explore various offerings of GCP for operations and security

Book Description On-premise data centers are costly to manage. If you need a data center but don't want to deal with a physical one, Google Cloud Platform (GCP) is the solution. With GCP, you can build, test, and deploy applications on Google's infrastructure. Google Cloud Platform Administration begins with GCP fundamentals, with the help of which you will deploy your first app and gain an understanding of Google Cloud architecture and services. Furthermore, you will learn how to manage Compute, networking, and storage resources. As you make your way through the book, you will learn how to track and manage GCP's usage, monitoring, and billing access control. You will also be able to manage your GCP's access and permissions. In the concluding chapters, you will explore a list of different developer tools for managing and interacting with the GCP platform. By the end of this book, you will have learned how to effectively deploy workloads on GCP. What you will learn

Understand all GCP Compute components Deploy and manage multiple GCP storage options Manage and utilize the networking resources offered by GCP Explore the functionalities and features of the GCP Container

Understand the workings of GCP operations such as monitoring and error reporting Discover an immune GCP using its identity and security options

Who this book is for Google Cloud Platform Administration is for administrators, cloud architects, and engineers who want to leverage the upcoming Google Cloud Platform. Some basic understanding of cloud computing will be useful.

The Practice of Cloud System Administration Designing and Operating Large Distributed Systems Pearson Education

Comprehensive, interactive exam preparation and so much more The AWS Certified SysOps

Administrator Official Study Guide: Associate Exam is a comprehensive exam preparation resource. This book bridges the gap between exam preparation and real-world readiness, covering exam objectives while guiding you through hands-on exercises based on situations you'll likely encounter as an AWS Certified SysOps Administrator. From deployment, management, and operations to migration, data flow, cost control, and beyond, this guide will help you internalize the processes and best practices associated with AWS. The Sybex interactive online study environment gives you access to invaluable preparation aids, including an assessment test that helps you focus your study on areas most in need of review, and chapter tests to help you gauge your mastery of the material. Electronic flashcards make it easy to study anytime, anywhere, and a bonus practice exam gives you a sneak preview so you know what to expect on exam day. Cloud computing offers businesses a cost-effective, instantly scalable IT infrastructure. The AWS Certified SysOps Administrator - Associate credential shows that you have technical expertise in deployment, management, and operations on AWS. Study exam objectives Gain practical experience with hands-on exercises Apply your skills to real-world scenarios Test your understanding with challenging review questions Earning your AWS Certification is much more than just passing an exam—you must be able to perform the duties expected of an AWS Certified SysOps Administrator in a real-world setting. This book does more than coach you through the test: it trains you in the tools, procedures, and thought processes to get the job done well. If you're serious about validating your expertise and working at a higher level, the AWS Certified SysOps Administrator Official Study Guide: Associate Exam is the resource you've been seeking.

Deliver continuous business value through people, processes, and technology

Networking Health

Accelerate

Time Management for System Administrators

Commands and File Formats

Practical Ways to Implement SRE

Learn Azure in a Month of Lunches, Second Edition

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“There’s an incredible amount of depth and thinking in the practices described here, and it’s impressive to see it all in one place.” –Win Treese, coauthor of *Designing Systems for Internet Commerce The Practice of Cloud System Administration, Volume 2*, focuses on “distributed” or “cloud” computing and brings a DevOps/SRE sensibility to the practice of system administration. Unsatisfied with books that cover either design or operations in isolation, the authors created this authoritative reference centered on a comprehensive approach. Case studies and examples from Google, Etsy, Twitter, Facebook, Netflix, Amazon, and other industry giants are explained in practical ways that are useful to all enterprises. The new companion to the best-selling first volume, *The Practice of System and Network Administration, Second Edition*, this guide offers expert coverage of the following and many other crucial topics: Designing and building modern web and distributed systems Fundamentals of large system design Understand the new software engineering implications of cloud administration Make systems that are resilient to failure and grow and scale dynamically Implement DevOps principles and cultural changes IaaS/PaaS/SaaS and virtual platform selection Operating and running systems using the latest DevOps/SRE strategies Upgrade production systems with zero down-time What and how to automate; how to decide what not to automate On-call best practices that improve uptime Why distributed systems require fundamentally different system administration techniques Identify and resolve resiliency problems before they surprise you Assessing and evaluating your team’s operational effectiveness Manage the scientific process of continuous improvement A forty-page, pain-free assessment system you can start using today

If you're familiar with JIRA for issue tracking, bug tracking, and other uses, you know it can sometimes be tricky to set up and manage. In this concise book, software toolsmith Matt Doar clarifies some of the more confusing aspects by answering difficult and frequently asked questions about JIRA administration. *Practical JIRA Administration* shows you how JIRA is intended to be used, making it an ideal supplement to the extensive documentation already available. The book’s chapters are loosely connected, so you can go straight to the information that best serves your needs. Understand the difference

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between JIRA groups and JIRA project roles Discover what JIRA schemes do, and learn how to maintain them Use a consistent configuration approach to help you use JIRA as a platform Create a workflow from scratch Add, modify, and deactivate users Prepare for a JIRA upgrade, and troubleshoot if necessary Get remote access to JIRA via email, SQL, REST, and other methods

Market_Desc: · Students and novice system administrators· Professional network and systems administrators Special Features: · Coverage of both network and system administration from the perspective of the underlying principles that do not change on a day-to-day basis· Shows how to discover customer needs and then use that information to identify, interpret, and evaluate system and network requirements· Fully updated to cover new technologies including Java Services and Ipv6 and both Unix and Windows systems· Extended coverage of security including ISO 17799 About The Book: Burgess approaches both network and system administration from the perspective of principles and ideas which do not change on a day-to-day basis.A great deal of attention is paid to the heuristics of system and network administration; technical and sociological issues are taken into account equally and are presented thoughtfully with an eye to teaching not what to do as a system or network administrator, but how to think about problems that arise in practice. As a result, the author keeps the reader looking forward to what comes next and how to implement what he or she has learned.The focus is on strategic issues, how to keep systems maintainable and how to manage configuration files across an enterprise. During the 80s and most of the 90s the frontiers of system administration were about understanding what the job entailed and building tools in order to manage networks more efficiently. The next phase is about standardization of management and practice, making system administration more formal and less ad hoc, and Burgess' book is one of the first to begin to push into this area.Whilst there are multitudes of ways to become a systems administrator, many employers prefer to hire people with some formal college education. Certification and practical experience demonstrating these skills will be essential for applicants without a degree. Systems administrators must keep their skills current and acquire new ones.

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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

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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
iSCSI Implementation and Best Practices on IBM Storwize Storage Systems
How to Create World-Class Agility, Reliability, and Security in Technology Organizations
Design highly available, scalable, and secure cloud solutions on GCP
AWS Certified SysOps Administrator Official Study Guide
Distributed and Cloud Computing
Designing Data-Intensive Applications
The Site Reliability Workbook

“ As this book shows, Linux systems are just as functional, secure, and reliable as their proprietary counterparts. Thanks to the ongoing efforts of thousands of Linux developers, Linux is more ready than ever for deployment at the frontlines of the real world. The authors of this book know that terrain well, and I am happy to leave you in their most capable hands. ” –Linus Torvalds “ The most successful sysadmin book of all time—because it works! ” –Rik Farrow, editor of ;login: “ This book clearly explains current technology with the perspective of decades of experience in large-scale system administration. Unique and highly recommended. ” –Jonathan Corbet, cofounder, LWN.net “ Nemeth et al. is the overall winner for Linux administration: it ’ s intelligent, full of insights, and looks at the implementation of concepts. ” –Peter Salus, editorial director, Matrix.net Since 2001, Linux Administration Handbook has been the definitive resource for every Linux® system administrator who must efficiently solve technical problems and maximize the reliability and performance of a production environment. Now, the authors have systematically updated this classic guide to address today ’ s most important Linux distributions and most powerful new administrative tools. The authors spell out detailed best practices for every facet of system administration, including storage management, network design and administration, web hosting, software configuration management, performance analysis, Windows interoperability, and much more. Sysadmins will especially appreciate the thorough and up-to-date discussions of such difficult topics such as DNS, LDAP, security, and the management of IT service organizations. Linux® Administration Handbook, Second Edition, reflects the current versions of these leading distributions: Red Hat® Enterprise Linux® Fedora™ Core SUSE® Linux Enterprise Debian® GNU/Linux Ubuntu® Linux Sharing their war stories and hard-won insights, the authors capture the behavior of Linux systems in the real world, not just in ideal environments. They explain complex tasks in detail and illustrate these tasks with examples drawn from their extensive hands-on experience. Cloud Computing: Theory and Practice provides students and IT professionals with an in-depth analysis of the cloud from the ground up. Beginning with a discussion of parallel computing and architectures and distributed systems, the book turns to

contemporary cloud infrastructures, how they are being deployed at leading companies such as Amazon, Google and Apple, and how they can be applied in fields such as healthcare, banking and science. The volume also examines how to successfully deploy a cloud application across the enterprise using virtualization, resource management and the right amount of networking support, including content delivery networks and storage area networks. Developers will find a complete introduction to application development provided on a variety of platforms. Learn about recent trends in cloud computing in critical areas such as: resource management, security, energy consumption, ethics, and complex systems Get a detailed hands-on set of practical recipes that help simplify the deployment of a cloud based system for practical use of computing clouds along with an in-depth discussion of several projects Understand the evolution of cloud computing and why the cloud computing paradigm has a better chance to succeed than previous efforts in large-scale distributed computing

This IBM® Redbooks® publication helps administrators and technical professionals understand Internet Small Computer System Interface (iSCSI) and how to implement it for use with IBM Storwize® storage systems. iSCSI can be used alone or with other technologies. This publication provides an overview of the iSCSI protocol and helps you understand how it is similar to and different from Fibre Channel (FC) technology. It helps you plan and design your network topology. It explains how to configure your IBM Storwize storage systems and hosts (including IBM AIX®, Linux, VMware, and Microsoft Windows hosts) to interact with it. It also provides an overview of using IBM Storwize storage systems with OpenStack. This book describes configuring iSCSI for IBM Storwize and SAN Volume Controller storage systems at Version 7.6 or later. In addition to configuration, this publication provides information about performance and troubleshooting.

In the race to compete in today ' s fast-moving markets, large enterprises are busy adopting new technologies for creating new products, processes, and business models. But one obstacle on the road to digital transformation is placing too much emphasis on technology, and not enough on the types of processes technology enables. What if different lines of business could build their own services and applications—and decision-making was distributed rather than centralized? This report explores the concept of a digital business platform as a way of empowering individual business sectors to act on data in real time. Much innovation in a digital enterprise will increasingly happen at the edge, whether it involves business users (from marketers to data scientists) or IoT devices. To facilitate the process, your core IT team can provide these sectors with the digital tools they need to innovate quickly. This report explores: Key cultural and organizational changes for developing business capabilities through cross-functional product teams A platform for integrating applications, data sources, business partners, clients, mobile apps, social networks, and IoT devices Creating internal API programs for building innovative edge services in low-code or no-code environments Tools including Integration Platform as a Service, Application Platform as a Service, and Integration Software as a Service The challenge of integrating microservices and serverless architectures Event-driven architectures for processing and reacting to events in real time You ' ll also learn about a complete pervasive integration solution as a core component of a digital business platform to serve every audience in your organization.

Occupational Outlook Handbook

Building and Maintaining Reliable Systems

AWS System Administration

Cloud Computing

Principles of Network and System Administration

From Parallel Processing to the Internet of Things

If you create, manage, operate, or configure systems running in the cloud, you're a cloud engineer--even if you work as a system administrator, software developer, data scientist, or site reliability engineer. With this book, professionals from around the world provide valuable insight into today's cloud engineering role. These concise articles explore the entire cloud computing experience, including fundamentals, architecture, and migration. You'll delve into security and compliance, operations and reliability, and software development. And examine networking, organizational culture, and more. You're sure to find 1, 2, or 97 things that inspire you to dig deeper in your own career. "Three Keys to Making the Right Multicloud Decisions," Brendan O'Leary "Serverless Bad Practices," Manases Galindo Bello "Failing a Cloud Migration," Lee Atchison "Treat Your Cloud Environment as If It Were On Premises," Iyana Garry "What Is Toil, and Why Are SREs Obsessed with It?", Zachary Nickens "Lean QA: The QA Evolving in the DevOps World," Theresa Neate "How Economies of Scale Work in the Cloud," Jon Moore "The Cloud Is Not About the Cloud," Ken Corless "Data Gravity: The Importance of Data Management in the Cloud," Geoff Hughes "Even in the Cloud, the Network Is the Foundation," David Murray "Engineering Is About Culture, Not Containers," Holly Cummins

Distributed Systems: An Algorithmic Approach, Second Edition provides a balanced and straightforward treatment of the underlying theory and practical applications of distributed computing. As in the previous version, the language is kept as unobscured as possible, given priority over mathematical formalism. This easily digestible text:Fea

An encyclopedia designed especially to meet the needs of elementary, junior high, and senior high school students.

You may regard cloud computing as an ideal way for your company to control IT costs, but do you know how private and secure it really is? Not many people do. With Cloud Security and Privacy, you'll learn what's at stake when you trust your data to the cloud and what you can do to keep your virtual infrastructure and web applications secure. Ideal for IT staffers, information security and privacy practitioners, business managers, service providers, and investors alike, this book offers you sound advice from three well-known experts in the tech security world. You'll learn detailed information on cloud computing security that--until now--has been sorely lacking. Learn the current state of data security and storage in the cloud, including confidentiality, integrity, and availability Learn about the ideal access management (IAM) practice for authentication, authorization, and auditing of the users accessing cloud services Discover how security management frameworks and standards are relevant for the cloud Understand the privacy aspects you need to consider for the cloud, including how they compare with traditional computing models Learn the importance of audit and compliance functions

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cloud, and the various standards and frameworks to consider Examine security delivered as a service-a different facet of cloud
DevOps and SRE Practices for Web Services, Volume 2

Cloud Security and Privacy

The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations

Distributed Systems

Ten Strategies of a World-Class Cybersecurity Operations Center

Site Reliability Engineering

Essential System Administration Pocket Reference

Summary Linux in Action is a task-based tutorial that will give you the skills and deep understanding you need to administer a Linux-based system. This hands-on book guides you through 12 real-world projects so you can practice as you learn. Each chapter ends with a review of best practices, new terms, and exercises. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology You can't learn anything without getting your hands dirty— including Linux. Skills like securing files, folders, and servers, safely installing patches and applications, and managing a network are required for any serious user, including developers, administrators, and DevOps professionals. With this hands-on tutorial, you'll roll up your sleeves and learn Linux project by project. About the Book Linux in Action guides you through 12 real-world projects, including automating a backup-and-restore system, setting up a private Dropbox-style file cloud, and building your own MediaWiki server. You'll try out interesting examples as you lock in core practices like virtualization, disaster recovery, security, backup, DevOps, and system troubleshooting. Each chapter ends with a review of best practices, new terms, and exercises. What's inside Setting up a safe Linux environment Managing secure remote connectivity Building a system recovery device Patching and upgrading your system About the Reader No prior Linux admin experience is required. About the Author David Clinton is a certified Linux Server Professional, seasoned instructor, and author of Manning's bestselling Learn Amazon Web Services in a Month of Lunches. Table of Contents Welcome to Linux Linux virtualization: Building a Linux working environment Remote connectivity: Safely accessing networked machines Archive management: Backing up or copying entire file systems Automated administration: Configuring automated offsite backups Emergency tools: Building a system recovery device Web servers: Building a MediaWiki server Networked file sharing: Building a Nextcloud file-sharing server Securing your web server Securing network connections: Creating a VPN or DMZ System monitoring: Working with log files Sharing data over a private network Troubleshooting system performance issues Troubleshooting network issues Troubleshooting peripheral devices DevOps tools: Deploying a scripted server environment using Ansible

“As an author, editor, and publisher, I never paid much attention to the competition—except in a few cases.

This is one of those cases. The UNIX System Administration Handbook is one of the few books we ever measured ourselves against.” —Tim O’Reilly, founder of O’Reilly Media “This edition is for those whose systems live in the cloud or in virtualized data centers; those whose administrative work largely takes the form of automation and configuration source code; those who collaborate closely with developers, network engineers, compliance officers, and all the other worker bees who inhabit the modern hive.” —Paul Vixie, Internet Hall of Fame-recognized innovator and founder of ISC and Farsight Security “This book is fun and functional as a desktop reference. If you use UNIX and Linux systems, you need this book in your short-reach library. It covers a bit of the systems’ history but doesn’t bloviate. It’s just straight-forward information delivered in a colorful and memorable fashion.” —Jason A. Nunnelley UNIX® and Linux® System Administration Handbook, Fifth Edition, is today’s definitive guide to installing, configuring, and maintaining any UNIX or Linux system, including systems that supply core Internet and cloud infrastructure. Updated for new distributions and cloud environments, this comprehensive guide covers best practices for every facet of system administration, including storage management, network design and administration, security, web hosting, automation, configuration management, performance analysis, virtualization, DNS, security, and the management of IT service organizations. The authors—world-class, hands-on technologists—offer indispensable new coverage of cloud platforms, the DevOps philosophy, continuous deployment, containerization, monitoring, and many other essential topics. Whatever your role in running systems and networks built on UNIX or Linux, this conversational, well-written guide will improve your efficiency and help solve your knottiest problems.

Ten Strategies of a World-Class Cyber Security Operations Center conveys MITRE's accumulated expertise on enterprise-grade computer network defense. It covers ten key qualities of leading Cyber Security Operations Centers (CSOCs), ranging from their structure and organization, to processes that best enable smooth operations, to approaches that extract maximum value from key CSOC technology investments. This book offers perspective and context for key decision points in structuring a CSOC, such as what capabilities to offer, how to architect large-scale data collection and analysis, and how to prepare the CSOC team for agile, threat-based response. If you manage, work in, or are standing up a CSOC, this book is for you. It is also available on MITRE's website, www.mitre.org.

Early system administration required in-depth knowledge of a variety of services on individual systems. Now, the job is increasingly complex and different from one company to the next with an ever-growing list of technologies and third-party services to integrate. How does any one individual stay relevant in systems and services? This practical guide helps anyone in operations--sysadmins, automation engineers, IT professionals, and site reliability engineers--understand the essential concepts of the role today. Collaboration, automation, and the evolution of systems change the fundamentals of operations work. No matter where you are in your journey, this book provides you the information to craft your path to advancing essential system

administration skills. Author Jennifer Davis provides examples of modern practices and tools with recommended materials to advance your skills. Topics include: Development and testing: Version control, fundamentals of virtualization and containers, testing, and architecture review Deploying and configuring services: Infrastructure management, networks, security, storage, serverless, and release management Scaling administration: Monitoring and observability, capacity planning, log management and analysis, and security and compliance

Best Practices for Sysadmins in the Amazon Cloud

Patterns and Paradigms for Scalable, Reliable Services

Designing and Operating Large Distributed Systems

Prescriptions for the Internet

Designing and operating large distributed systems. Volume 2

Keeping the Data On Time

The Practice of Cloud System Administration

With platforms designed for rapid adaptation and failure recovery such as Amazon Web Services, cloud computing is more like programming than traditional system administration. Tools for automatic scaling and instance replacement allow even small DevOps teams to manage massively scalable application infrastructures—if team members drop their old views of development and operations and start mastering automation. This comprehensive guide shows developers and system administrators how to configure and manage AWS services including EC2, CloudFormation, Elastic Load Balancing, S3, and Route 53. Sysadms will learn will learn to automate their favorite tools and processes; developers will pick up enough ops knowledge to build a robust and resilient AWS application infrastructure. Launch instances with EC2 or CloudFormation Securely deploy and manage your applications with AWS tools Learn to automate AWS configuration management with Python and Puppet Deploy applications with Auto Scaling and Elastic Load Balancing Explore approaches for deploying application and infrastructure updates Save time on development and operations with reusable components Learn strategies for managing log files in AWS environments Configure a cloud-aware DNS service with Route 53 Use AWS CloudWatch to monitor your infrastructure and applications

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons

Read Book Practice Of Cloud System Administration The Designing And Operating Large Distributed Systems Volume 2

directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE’s day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

In 2016, Google’s Site Reliability Engineering book ignited an industry discussion on what it means to run production services today—and why reliability considerations are fundamental to service design. Now, Google engineers who worked on that bestseller introduce The Site Reliability Workbook, a hands-on companion that uses concrete examples to show you how to put SRE principles and practices to work in your environment. This new workbook not only combines practical examples from Google’s experiences, but also provides case studies from Google’s Cloud Platform customers who underwent this journey. Evernote, The Home Depot, The New York Times, and other companies outline hard-won experiences of what worked for them and what didn’t. Dive into this workbook and learn how to flesh out your own SRE practice, no matter what size your company is. You’ll learn: How to run reliable services in environments you don’t completely control—like cloud Practical applications of how to create, monitor, and run your services via Service Level Objectives How to convert existing ops teams to SRE—including how to dig out of operational overload Methods for starting SRE from either greenfield or brownfield

Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

Volume 1: DevOps and other Best Practices for Enterprise IT

Web Operations

Associate Exam

97 Things Every Cloud Engineer Should Know

UNIX and Linux System Administration Handbook

A Practical Guide to Linux System Administration

This book highlights practical sysadmin skills, common architectures that you'll encounter, and best practices that apply to automating and running systems at any scale, from one laptop or server to 1,000 or more. It is intended to help orient you within the discipline, and hopefully encourages you to learn more about system administration.

A thorough reference on database administration outlines a variety of DBA roles and responsibilities and discusses such topics as data modeling and normalization, database/application design, change management, database security and data integrity, performance issues, disaster planning, and other essentials. Original. (Advanced)

Provides advice for system administrators on time management, covering such topics as keeping an effective calendar, eliminating time wasters, setting priorities, automating processes, and managing interruptions.