

Mastering Linux Network Administration

Learning RHEL NetworkingLinux Network Administrator's GuideLinux AdministrationLinux System AdministrationLinux Network Administrator's Interactive WorkbookUNIX and Linux System Administration HandbookTCP/IP Network AdministrationMastering Python Scripting for System AdministratorsThe Practice of System and Network AdministrationPro Linux System AdministrationMastering Linux Shell Scripting,Mastering Modern LinuxHow Linux Works, 2nd EditionMastering?LinuxLinux in ActionMastering Linux Network AdministrationManaging Linux Systems with WebminMastering?LinuxLinux Administration: A Beginner's Guide, Eighth EditionLinux Networking CookbookMastering Ubuntu ServerLinux Administration for DummiesMastering Python for Unix and Linux System AdministrationSELinux System AdministrationCentOS System Administration EssentialsPython for Unix and Linux System AdministrationLinux Administration CookbookLinux Mint EssentialsMastering Linux - NetworkingMastering Ubuntu ServerMastering Linux Security and HardeningMastering Linux - StorageMastering Linux Security and HardeningPrinciples of Network and System AdministrationMastering Embedded Linux ProgrammingLinux Hardening in Hostile NetworksMastering CentOS 7 Linux ServerUnderstanding Linux Network InternalsRed Hat Linux Networking and System AdministrationLinux Administration Handbook

Learning RHEL Networking

Get up to date with the finer points of Ubuntu Server using this comprehensive guide About This Book Get well-versed with newly-added features in Ubuntu 16.04 Master the art of installing, managing, and troubleshooting Ubuntu Server A practical easy-to-understand book that will help you enhance your existing skills. Who This Book Is For This book is intended for readers with intermediate or advanced-beginner skills with Linux, who would like to learn all about setting up servers with Ubuntu Server. This book assumes that the reader knows the basics of Linux, such as editing configuration files and running basic commands. What You Will Learn Learn how to manage users, groups, and permissions Encrypt and decrypt disks with Linux Unified Key Setup /Luks Setup SSH for remote access, and connect it to other nodes Understand how to add, remove, and search for packages Use NFS and Samba to share directories with other users Get to know techniques for managing Apache and MariaDB Explore best practices and troubleshooting techniques In Detail Ubuntu is a Debian-based Linux operating system, and has various versions targeted at servers, desktops, phones, tablets and televisions. The Ubuntu Server Edition, also called Ubuntu Server, offers support for several common configurations, and also simplifies common Linux server deployment processes. With this book as their guide, readers will be able to configure and deploy Ubuntu Servers using Ubuntu Server 16.04, with all the skills necessary to manage real servers. The book begins with the concept of user management, group management, as well as file-system permissions. To manage your storage on Ubuntu Server systems, you will learn how to add and format storage and view disk usage. Later, you will also learn how to configure

network interfaces, manage IP addresses, deploy Network Manager in order to connect to networks, and manage network interfaces. Furthermore, you will understand how to start and stop services so that you can manage running processes on Linux servers. The book will then demonstrate how to access and share files to or from Ubuntu Servers. You will learn how to create and manage databases using MariaDB and share web content with Apache. To virtualize hosts and applications, you will be shown how to set up KVM/Qemu and Docker and manage virtual machines with virt-manager. Lastly, you will explore best practices and troubleshooting techniques when working with Ubuntu Servers. By the end of the book, you will be an expert Ubuntu Server user well-versed in its advanced concepts. Style and Approach This book is an advanced guide that will show readers how to administer, manage, and deploy Ubuntu server and will also provide expert-level knowledge on advanced security and backup techniques.

Linux Network Administrator's Guide

This soup-to-nuts collection of recipes covers everything you need to know to perform your job as a Linux network administrator, whether you're new to the job or have years of experience. With Linux Networking Cookbook, you'll dive straight into the gnarly hands-on work of building and maintaining a computer network. Running a network doesn't mean you have all the answers. Networking is a complex subject with reams of reference material that's difficult to keep straight, much less remember. If you want a book that lays out the steps for specific tasks, that clearly explains the commands and configurations, and does not tax your patience with endless ramblings and meanderings into theory and obscure RFCs, this is the book for you. You will find recipes for: Building a gateway, firewall, and wireless access point on a Linux network Building a VoIP server with Asterisk Secure remote administration with SSH Building secure VPNs with OpenVPN, and a Linux PPTP VPN server Single sign-on with Samba for mixed Linux/Windows LANs Centralized network directory with OpenLDAP Network monitoring with Nagios or MRTG Getting acquainted with IPv6 Setting up hands-free networks installations of new systems Linux system administration via serial console And a lot more. Each recipe includes a clear, hands-on solution with tested code, plus a discussion on why it works. When you need to solve a network problem without delay, and don't have the time or patience to comb through reference books or the Web for answers, Linux Networking Cookbook gives you exactly what you need.

Linux Administration

Join the Linux Revolution! Newly revised and updated, Mastering Linux, Second Edition is the best all-in-one Linux resource available anywhere. Inside, you'll find everything you need to know to install, configure, use, and optimize this increasingly popular and respected operating system. You'll even find the operating system itself—the Publisher's Edition of Red Hat Linux 7, absolutely free on the enclosed CD! Whatever you want to achieve with Linux, Mastering Linux makes it easy,

providing the clear instruction and unique insights of a Linux expert who understands the needs of the non-Unix world. Coverage includes: Installing Linux Configuring and using the GNOME and KDE graphical user interfaces Configuring and using X-Windows v. 4 Using Linux commands Managing files in Linux Connecting to the Internet and e-mailing with Linux Using Netscape 6 for Linux Faxing from Linux Using Linux on a LAN Using Linux as part of a Windows network Connecting and configuring USB peripherals Creating a Linux Web server Setting up and using a Linux mail server Running DOS and Windows applications using Wine Configuring your Linux system with LinuxConf Re-compiling the Linux kernel Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Linux System Administration

A comprehensive guide to securing your Linux system against cyberattacks and intruders Key Features Deliver a system that reduces the risk of being hacked Explore a variety of advanced Linux security techniques with the help of hands-on labs Master the art of securing a Linux environment with this end-to-end practical guide Book Description From creating networks and servers to automating the entire working environment, Linux has been extremely popular with system administrators for the last couple of decades. However, security has always been a major concern. With limited resources available in the Linux security domain, this book will be an invaluable guide in helping you get your Linux systems properly secured. Complete with in-depth explanations of essential concepts, practical examples, and self-assessment questions, this book begins by helping you set up a practice lab environment and takes you through the core functionalities of securing Linux. You'll practice various Linux hardening techniques and advance to setting up a locked-down Linux server. As you progress, you will also learn how to create user accounts with appropriate privilege levels, protect sensitive data by setting permissions and encryption, and configure a firewall. The book will help you set up mandatory access control, system auditing, security profiles, and kernel hardening, and finally cover best practices and troubleshooting techniques to secure your Linux environment efficiently. By the end of this Linux security book, you will be able to confidently set up a Linux server that will be much harder for malicious actors to compromise. What you will learn Create locked-down user accounts with strong passwords Configure firewalls with iptables, UFW, nftables, and firewalld Protect your data with different encryption technologies Harden the secure shell service to prevent security break-ins Use mandatory access control to protect against system exploits Harden kernel parameters and set up a kernel-level auditing system Apply OpenSCAP security profiles and set up intrusion detection Configure securely the GRUB 2 bootloader and BIOS/UEFI Who this book is for This book is for Linux administrators, system administrators, and network engineers interested in securing moderate to complex Linux environments. Security consultants looking to enhance their Linux security skills will also find this book useful. Working experience with the Linux command line and package management is necessary to understand the concepts covered in this book.

Linux Network Administrator's Interactive Workbook

* Updated to cover Red Hat Linux Enterprise Workstation with the latest on advanced Linux kernel features, the Tux Web server, the latest Apache 2.x Web server, and the expanded suite of custom configuration tools * Starts with network planning and Red Hat installation and configuration, then progresses to optimizing network and Internet services and monitoring and maintaining the network * Examines the basics of Red Hat Linux security and offers trouble-shooting and problem-solving advice * Includes important new chapters that focus on optimizing standard network services, such as file and print services, and Internet-related servers, such as the Apache Web server Copyright © 2004 by Red Hat, Inc. Material from Chapters 4-6, 8-10, 17 and 21 may be distributed only subject to the terms and conditions set forth in the Open Publication License, V1.0 or later (the latest version is presently available at <http://www.opencontent.org/openpub/>).

UNIX and Linux System Administration Handbook

“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.

TCP/IP Network Administration

A task-oriented look at Linux Mint, using actual real-world examples to stimulate learning. Each topic is presented in an easy-to-follow order, with hands-on activities to reinforce the content. If you are starting out with Linux from a different platform or are well versed with Linux Mint and want a guide that shows you how to exploit certain functionality, this book is for you. No previous Linux experience is assumed.

Mastering Python Scripting for System Administrators

If you are a Linux administrator who is looking to gain knowledge that differentiates yourself from the crowd, then this is the book for you. Beginners who have a keen interest to learn more about Linux administration will also progress quickly with this resourceful learning guide.

The Practice of System and Network Administration

Python is an ideal language for solving problems, especially in Linux and Unix networks. With this pragmatic book, administrators can review various tasks that often occur in the management of these systems, and learn how Python can provide a more efficient and less painful way to handle them.

Pro Linux System Administration

Over 100 recipes to get up and running with the modern Linux administration ecosystem
Key Features
Understand and implement the core system administration tasks in Linux
Discover tools and techniques to troubleshoot your Linux system
Maintain a healthy system with good security and backup practices
Book Description
Linux is one of the most widely used operating systems among system administrators, and even modern application and server development is heavily reliant on the Linux platform. The Linux Administration Cookbook is your go-to guide to get started on your Linux journey. It will help you understand what that strange little server is doing in the corner of your office, what the mysterious virtual machine languishing in Azure is crunching through, what that circuit-board-like thing is doing under your office TV, and why the LEDs on it are blinking rapidly. This book will get you started with administering Linux, giving you the knowledge and tools you need to troubleshoot day-to-day problems, ranging from a Raspberry Pi to a server in Azure, while giving you a good understanding of the fundamentals of how GNU/Linux works. Through the course of the book, you'll install and configure a system, while the author regales you with errors and anecdotes from his vast experience as a data center hardware engineer, systems administrator, and DevOps consultant. By the end of the book, you will have gained practical knowledge of Linux, which will serve as a bedrock for learning Linux administration and aid you in your Linux journey. What you will learn
Install and manage a Linux server, both locally and in the cloud
Understand how to perform administration across all

Linux distros Work through evolving concepts such as IaaS versus PaaS, containers, and automation Explore security and configuration best practices Troubleshoot your system if something goes wrong Discover and mitigate hardware issues, such as faulty memory and failing drives Who this book is for If you are a system engineer or system administrator with basic experience of working with Linux, this book is for you.

Mastering Linux Shell Scripting,

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Gain Essential Linux Administration Skills Easily Effectively set up and manage popular Linux distributions on individual servers and build entire network infrastructures using this practical resource. Fully updated to cover the latest tools and techniques, Linux Administration: A Beginner's Guide, Eighth Edition features clear explanations, step-by-step instructions, and real-world examples. Find out how to configure hardware and software, work from the command line or GUI, maintain Internet and network services, and secure your data. Performance tuning, virtualization, containers, software management, security, and backup solutions are covered in detail. Install and configure Linux, including the latest distributions from Fedora, Ubuntu, CentOS, openSUSE, Debian, and RHEL. Set up and administer core system services, daemons, users, and groups. Manage software applications from source code or binary packages. Customize, build, or patch the Linux kernel. Understand and manage the Linux network stack and networking protocols, including TCP/IP, ARP, IPv4, and IPv6. Minimize security threats and build reliable firewalls and routers with Netfilter (iptables and nftables) and Linux. Create and maintain DNS, FTP, web, e-mail, print, LDAP, VoIP, and SSH servers and services. Share resources using GlusterFS, NFS, and Samba. Spin-up and manage Linux-based servers in popular cloud environments, such as OpenStack, AWS, Azure, Linode, and GCE. Explore virtualization and container technologies using KVM, Docker, Kubernetes, and Open Container Initiative (OCI) tooling. Download specially curated Virtual Machine image and containers that replicate various exercises, software, servers, commands, and concepts covered in the book. Wale Soyinka is a father, system administrator, a DevOps/SecOps aficionado, an open source evangelist, a hacker, and a well-respected world-renowned chef (in his mind). He is the author of Advanced Linux Administration as well as other Linux, Network, and Windows administration training materials.

Mastering Modern Linux

This complete guide to setting up and running a TCP/IP network is essential for network administrators, and invaluable for users of home systems that access the Internet. The book starts with the fundamentals -- what protocols do and how they work, how addresses and routing are used to move data through the network, how to set up your network connection -- and then covers, in detail, everything you need to know to exchange information via the Internet. Included are discussions on

advanced routing protocols (RIPv2, OSPF, and BGP) and the gated software package that implements them, a tutorial on configuring important network services -- including DNS, Apache, sendmail, Samba, PPP, and DHCP -- as well as expanded chapters on troubleshooting and security. TCP/IP Network Administration is also a command and syntax reference for important packages such as gated, pppd, named, dhcpd, and sendmail. With coverage that includes Linux, Solaris, BSD, and System V TCP/IP implementations, the third edition contains: Overview of TCP/IP Delivering the data Network services Getting started M Basic configuration Configuring the interface Configuring routing Configuring DNS Configuring network servers Configuring sendmail Configuring Apache Network security Troubleshooting Appendices include dip, pppd, and chat reference, a gated reference, a dhcpd reference, and a sendmail reference This new edition includes ways of configuring Samba to provide file and print sharing on networks that integrate Unix and Windows, and a new chapter is dedicated to the important task of configuring the Apache web server. Coverage of network security now includes details on OpenSSH, stunnel, gpg, iptables, and the access control mechanism in xinetd. Plus, the book offers updated information about DNS, including details on BIND 8 and BIND 9, the role of classless IP addressing and network prefixes, and the changing role of registrars. Without a doubt, TCP/IP Network Administration, 3rd Edition is a must-have for all network administrators and anyone who deals with a network that transmits data over the Internet.

How Linux Works, 2nd Edition

Master the techniques needed to build great, efficient embedded devices on Linux About This Book Discover how to build and configure reliable embedded Linux devices This book has been updated to include Linux 4.9 and Yocto Project 2.2 (Morty) This comprehensive guide covers the remote update of devices in the field and power management Who This Book Is For If you are an engineer who wishes to understand and use Linux in embedded devices, this book is for you. It is also for Linux developers and system programmers who are familiar with embedded systems and want to learn and program the best in class devices. It is appropriate for students studying embedded techniques, for developers implementing embedded Linux devices, and engineers supporting existing Linux devices. What You Will Learn Evaluate the Board Support Packages offered by most manufacturers of a system on chip or embedded module Use Buildroot and the Yocto Project to create embedded Linux systems quickly and efficiently Update IoT devices in the field without compromising security Reduce the power budget of devices to make batteries last longer Interact with the hardware without having to write kernel device drivers Debug devices remotely using GDB, and see how to measure the performance of the systems using powerful tools such as perk, ftrace, and valgrind Find out how to configure Linux as a real-time operating system In Detail Embedded Linux runs many of the devices we use every day, from smart TVs to WiFi routers, test equipment to industrial controllers - all of them have Linux at their heart. Linux is a core technology in the implementation of the inter-connected world of the Internet of Things. The comprehensive guide shows you the technologies and techniques required to build Linux into embedded systems. You will begin by learning about the fundamental elements that underpin all embedded Linux projects:

the toolchain, the bootloader, the kernel, and the root filesystem. You'll see how to create each of these elements from scratch, and how to automate the process using Buildroot and the Yocto Project. Moving on, you'll find out how to implement an effective storage strategy for flash memory chips, and how to install updates to the device remotely once it is deployed. You'll also get to know the key aspects of writing code for embedded Linux, such as how to access hardware from applications, the implications of writing multi-threaded code, and techniques to manage memory in an efficient way. The final chapters show you how to debug your code, both in applications and in the Linux kernel, and how to profile the system so that you can look out for performance bottlenecks. By the end of the book, you will have a complete overview of the steps required to create a successful embedded Linux system. **Style and approach** This book is an easy-to-follow and pragmatic guide with in-depth analysis of the implementation of embedded devices. It follows the life cycle of a project from inception through to completion, at each stage giving both the theory that underlies the topic and practical step-by-step walkthroughs of an example implementation.

Mastering?Linux

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.

Linux in Action

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!

Mastering Linux Network Administration

Master the skills and techniques that are required to design, deploy, and administer real Linux-based networks About This Book Master the art of using Linux and administering network services for enterprise environments Perform hands-on activities to reinforce expert-level knowledge Get full coverage of both the CentOS and Debian systems, including how networking concepts differ for each Who This Book Is For Mastering Linux Network Administration is recommended for those who already understand the basics of using Linux and networking, and would like to push those skills to a higher level through real-world Linux networking scenarios. Whether you intend to run a home office consisting of Linux nodes or a rollout of a Linux network within your organization, this book is a great fit for those that desire to learn how to manage networked systems with the power of Linux. What You Will Learn Install and configure the Debian and CentOS systems Set up and configure file servers Administer networked nodes remotely Discover how to monitor system performance for peak health Configure network services such as DNS and DHCP Host HTTP content via Apache Troubleshoot Linux networking issues In Detail Linux is everywhere. Whether you run a home office, a small business, or manage enterprise systems, Linux can empower your network to perform at its very best. Armed with the advanced tools and best practice guidance of this practical guide, you'll be able to mold Linux networks to your will, empowering your systems and their users to take advantage of all that Linux-based networks have to offer. Understand how Linux networks function and get to grips with essential tips and tricks to manage them - whether you're already managing a networks, or even just starting out. With Debian and CentOS as its source, this book will divulge all the details you need to manage a real Linux-based network. With detailed activities and instructions based on real-world scenarios, this book will be your guide to the exciting world of Linux networking. Style and approach This practical guide will walk you through all the core concepts required to manage real Linux-based networks.

Managing Linux Systems with Webmin

The Mastering Linux Series consisting of 6 books (Fundamentals, System Administration, Servers, Storage, Security, Networking) provides you with a solid foundation about the Linux Operating System. It abstracts from a particular distribution by giving you the background knowledge to easily work with any Linux distribution out there.

Mastering?Linux

Implement Industrial-Strength Security on Any Linux Server In an age of mass surveillance, when advanced cyberwarfare weapons rapidly migrate into every hacker's toolkit, you can't rely on outdated security methods—especially if you're responsible for Internet-facing services. In *Linux® Hardening in Hostile Networks*, Kyle Rankin helps you to implement modern safeguards that provide maximum impact with minimum effort and to strip away old techniques that are no longer worth your time. Rankin provides clear, concise guidance on modern workstation, server, and network hardening, and explains how to harden specific services, such as web servers, email, DNS, and databases. Along the way, he demystifies technologies once viewed as too complex or mysterious but now essential to mainstream Linux security. He also includes a full chapter on effective incident response that both DevOps and SecOps can use to write their own incident response plan. Each chapter begins with techniques any sysadmin can use quickly to protect against entry-level hackers and presents intermediate and advanced techniques to safeguard against sophisticated and knowledgeable attackers, perhaps even state actors. Throughout, you learn what each technique does, how it works, what it does and doesn't protect against, and whether it would be useful in your environment. Apply core security techniques including 2FA and strong passwords Protect admin workstations via lock screens, disk encryption, BIOS passwords, and other methods Use the security-focused Tails distribution as a quick path to a hardened workstation Compartmentalize workstation tasks into VMs with varying levels of trust Harden servers with SSH, use apparmor and sudo to limit the damage attackers can do, and set up remote syslog servers to track their actions Establish secure VPNs with OpenVPN, and leverage SSH to tunnel traffic when VPNs can't be used Configure a software load balancer to terminate SSL/TLS connections and initiate new ones downstream Set up standalone Tor services and hidden Tor services and relays Secure Apache and Nginx web servers, and take full advantage of HTTPS Perform advanced web server hardening with HTTPS forward secrecy and ModSecurity web application firewalls Strengthen email security with SMTP relay authentication, SMTPS, SPF records, DKIM, and DMARC Harden DNS servers, deter their use in DDoS attacks, and fully implement DNSSEC Systematically protect databases via network access control, TLS traffic encryption, and encrypted data storage Respond to a compromised server, collect evidence, and prevent future attacks Register your product at informit.com/register for convenient access to downloads, updates, and corrections as they become available.

Linux Administration: A Beginner's Guide, Eighth Edition

Linux Administration For Dummies shows its readers just how to maintain Linux in a client/server environment.

Linux Networking Cookbook

A guide to using the Python computer language to handle a variety of tasks in both the Unix and Linux servers.

Mastering Ubuntu Server

Benvenuti describes the relationship between the Internet's TCP/IP implementation and the Linux Kernel so that programmers and advanced administrators can modify and fine-tune their network environment.

Linux Administration for Dummies

A guide geared toward seasoned Linux and Unix administrators offers practical knowledge for managing a range of Linux systems and servers, covering such topics as installing servers, setting up e-mail systems, and creating shell scripts.

Mastering Python for Unix and Linux System Administration

Unlike some operating systems, Linux doesn't try to hide the important bits from you—it gives you full control of your computer. But to truly master Linux, you need to understand its internals, like how the system boots, how networking works, and what the kernel actually does. In this completely revised second edition of the perennial best seller *How Linux Works*, author Brian Ward makes the concepts behind Linux internals accessible to anyone curious about the inner workings of the operating system. Inside, you'll find the kind of knowledge that normally comes from years of experience doing things the hard way. You'll learn: -How Linux boots, from boot loaders to init implementations (systemd, Upstart, and System V) -How the kernel manages devices, device drivers, and processes -How networking, interfaces, firewalls, and servers work -How development tools work and relate to shared libraries -How to write effective shell scripts You'll also explore the kernel and examine key system tasks inside user space, including system calls, input and output, and filesystems. With its combination of background, theory, real-world examples, and patient explanations, *How Linux Works* will teach you what you need to know to solve pesky problems and take control of your operating system.

SELinux System Administration

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.

CentOS System Administration Essentials

The Mastering Linux Series consisting of 6 books (Fundamentals, System Administration, Servers, Storage, Security, Networking) provides you with a solid foundation about the Linux Operating System. It abstracts from a particular distribution by giving you the background knowledge to easily work with any Linux distribution out there.

Python for Unix and Linux System Administration

A step-by-step guide to learn how to set up security on Linux servers by taking SELinux policies into your own hands. Linux administrators will enjoy the various SELinux features that this book covers and the approach used to guide the admin into understanding how SELinux works. The book assumes that you have basic knowledge in Linux administration, especially Linux permission and user management.

Linux Administration Cookbook

PLEASE PROVIDE COURSE INFORMATION PLEASE PROVIDE

Linux Mint Essentials

Get up-to-date with the finer points of Ubuntu Server using this comprehensive guide Key Features A practical easy-to-understand book that will teach you how to deploy, maintain and troubleshoot Ubuntu Server Get well-versed with newly-added features in Ubuntu 18.04. Learn to manage cutting-edge technologies such as virtualization, containers, Nextcloud and more Book Description Ubuntu Server has taken the data centers by storm. Whether you're deploying Ubuntu for a large-scale project or for a small office, it is a stable, customizable, and powerful Linux distribution that leads the way with innovative and cutting-edge features. For both simple and complex server deployments, Ubuntu's flexible nature can be easily adapted to meet to the needs of your organization. With this book as your guide, you will learn all about Ubuntu Server, from initial deployment to creating production-ready resources for your network. The book begins with the concept

of user management, group management, and filesystem permissions. Continuing into managing storage volumes, you will learn how to format storage devices, utilize logical volume management, and monitor disk usage. Later, you will learn how to virtualize hosts and applications, which will cover setting up KVM/QEMU, as well as containerization with both Docker and LXD. As the book continues, you will learn how to automate configuration with Ansible, as well as take a look at writing scripts. Lastly, you will explore best practices and troubleshooting techniques when working with Ubuntu Server that are applicable to real-world scenarios. By the end of the book, you will be an expert Ubuntu Server administrator who is well-versed in its advanced concepts. What you will learn Manage users, groups, and permissions Encrypt and decrypt disks with Linux Unified Key Setup (LUKS) Set up SSH for remote access, and connect it to other nodes Add, remove, and search for packages Use NFS and Samba to share directories with other users Get to know techniques for managing Apache and MariaDB Explore best practices and troubleshooting techniques Get familiar with scripting Automate server deployments with Ansible Who this book is for This book is intended for readers with intermediate or advanced-beginner skills with Linux, who would like to learn all about setting up servers with Ubuntu Server. This book assumes that the reader knows the basics of Linux, such as editing configuration files and running basic commands.

Mastering Linux - Networking

Learn Linux Administration and Supercharge Your Career! If you're looking to make the jump from being a Linux user to being a Linux administrator, this book is for you! If you're in windows administration and want to learn the ins and outs of Linux administration, start here. This book is also great for Unix administrators switching to Linux administration. Here is what you will learn by reading this Linux System Administration book: How the the boot process works on Linux servers and what you can do to control it. The various types of messages generated by a Linux system, where they're stored, and how to automatically prevent them from filling up your disks. Disk management, partitioning, and file system creation. Managing Linux users and groups. Exactly how permissions work and how to decipher the most cryptic Linux permissions with ease. Networking concepts that apply to system administration and specifically how to configure Linux network interfaces. How to use the nano, vi, and emacs editors. How to schedule and automate jobs using cron. How to switch users and run processes as others. How to configure sudo. How to find and install software. Managing process and jobs. How to make the most out of the Linux command line Several Linux commands you'll need to know Linux shell scripting What you learn in book applies to any Linux system including Ubuntu Linux, Debian, Linux Mint, RedHat Linux, CentOS, Fedora, SUSE Linux, Arch Linux, Kali Linux and more. Real Advice from a Real, Professional Linux Administrator Jason Cannon is the author of Linux for Beginners, the founder of the Linux Training Academy, and an instructor to over 40,000 satisfied students. He started his IT career in the late 1990's as a Unix and Linux System Engineer and he'll be sharing his real-world Linux experience with you throughout this book. By the end of this book you will fully understand the most important and fundamental concepts of Linux server administration. More importantly, you will be able to put those concepts to use in practical real-world

situations. You'll be able to configure, maintain, and support a variety of Linux systems. You can even use the skills you learned to become a Linux System Engineer or Linux System Administrator.

Mastering Ubuntu Server

“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.

Mastering Linux Security and Hardening

Praise for the First Edition: "This outstanding book gives the reader robust concepts and implementable knowledge of this environment. Graphical user interface (GUI)-based users and developers do not get short shrift, despite the command-line interface’s (CLI) full-power treatment. Every programmer should read the introduction’s Unix/Linux philosophy section. This authoritative and exceptionally well-constructed book has my highest recommendation. It will repay careful and recursive study." --Computing Reviews, August 2011 Mastering Modern Linux, Second Edition retains much of the good material from the previous edition, with extensive updates and new topics added. The book provides a comprehensive and up-to-date

guide to Linux concepts, usage, and programming. The text helps the reader master Linux with a well-selected set of topics, and encourages hands-on practice. The first part of the textbook covers interactive use of Linux via the Graphical User Interface (GUI) and the Command-Line Interface (CLI), including comprehensive treatment of the Gnome desktop and the Bash Shell. Using different apps, commands and filters, building pipelines, and matching patterns with regular expressions are major focuses. Next comes Bash scripting, file system structure, organization, and usage. The following chapters present networking, the Internet and the Web, data encryption, basic system admin, as well as Web hosting. The Linux Apache MySQL/MariaDB PHP (LAMP) Web hosting combination is also presented in depth. In the last part of the book, attention is turned to C-level programming. Topics covered include the C compiler, preprocessor, debugger, I/O, file manipulation, process control, inter-process communication, and networking. The book includes many examples and complete programs ready to download and run. A summary and exercises of varying degrees of difficulty can be found at the end of each chapter. A companion website (<http://mml.sofpower.com>) provides appendices, information updates, an example code package, and other resources for instructors, as well as students.

Mastering Linux - Storage

Leverage the features and libraries of Python to administrate your environment efficiently. Key Features Learn how to solve problems of system administrators and automate routine activities Learn to handle regular expressions, network administration Building GUI, web-scraping and database administration including data analytics Book Description Python has evolved over time and extended its features in relation to every possible IT operation. Python is simple to learn, yet has powerful libraries that can be used to build powerful Python scripts for solving real-world problems and automating administrators' routine activities. The objective of this book is to walk through a series of projects that will teach readers Python scripting with each project. This book will initially cover Python installation and quickly revise basic to advanced programming fundamentals. The book will then focus on the development process as a whole, from setup to planning to building different tools. It will include IT administrators' routine activities (text processing, regular expressions, file archiving, and encryption), network administration (socket programming, email handling, the remote controlling of devices using telnet/ssh, and protocols such as SNMP/DHCP), building graphical user interface, working with websites (Apache log file processing, SOAP and REST APIs communication, and web scraping), and database administration (MySQL and similar database data administration, data analytics, and reporting). By the end of this book, you will be able to use the latest features of Python and be able to build powerful tools that will solve challenging, real-world tasks What you will learn Understand how to install Python and debug Python scripts Understand and write scripts for automating testing and routine administrative activities Understand how to write scripts for text processing, encryption, decryption, and archiving Handle files, such as pdf, excel, csv, and txt files, and generate reports Write scripts for remote network administration, including handling emails Build interactive tools using a graphical user interface Handle Apache log files, SOAP and REST APIs

communication Automate database administration and perform statistical analysis Who this book is for This book would be ideal for users with some basic understanding of Python programming and who are interested in scaling their programming skills to command line scripting and system administration. Prior knowledge of Python would be necessary.

Mastering Linux Security and Hardening

A comprehensive guide to mastering the art of preventing your Linux system from getting compromised. Key Features Leverage this guide to confidently deliver a system that reduces the risk of being hacked Perform a number of advanced Linux security techniques such as network service detection, user authentication, controlling special permissions, encrypting file systems, and much more Master the art of securing a Linux environment with this end-to-end practical guide Book Description This book has extensive coverage of techniques that will help prevent attackers from breaching your system, by building a much more secure Linux environment. You will learn various security techniques such as SSH hardening, network service detection, setting up firewalls, encrypting file systems, protecting user accounts, authentication processes, and so on. Moving forward, you will also develop hands-on skills with advanced Linux permissions, access control, special modes, and more. Lastly, this book will also cover best practices and troubleshooting techniques to get your work done efficiently. By the end of this book, you will be confident in delivering a system that will be much harder to compromise. What you will learn Use various techniques to prevent intruders from accessing sensitive data Prevent intruders from planting malware, and detect whether malware has been planted Prevent insiders from accessing data that they aren't authorized to access Do quick checks to see whether a computer is running network services that it doesn't need to run Learn security techniques that are common to all Linux distros, and some that are distro-specific Who this book is for If you are a systems administrator or a network engineer interested in making your Linux environment more secure, then this book is for you. Security consultants wanting to enhance their Linux security skills will also benefit from this book. Prior knowledge of Linux is mandatory.

Principles of Network and System Administration

Master the complexities of Bash shell scripting and unlock the power of shell for your enterprise Key Features Identify high-level steps such as verifying user input Using the command line and conditional statements in creating/executing simple shell scripts Create and edit dynamic shell scripts to manage complex and repetitive tasks Leverage the command-line to bypass GUI and automate common tasks Book Description In this book, you'll discover everything you need to know to master shell scripting and make informed choices about the elements you employ. Grab your favorite editor and start writing your best Bash scripts step by step. Get to grips with the fundamentals of creating and running a script in normal mode, and in debug mode. Learn about various conditional statements' code snippets, and realize the power of repetition

and loops in your shell script. You will also learn to write complex shell scripts. This book will also deep dive into file system administration, directories, and system administration like networking, process management, user authentications, and package installation and regular expressions. Towards the end of the book, you will learn how to use Python as a BASH Scripting alternative. By the end of this book, you will know shell scripts at the snap of your fingers and will be able to automate and communicate with your system with keyboard expressions. What you will learn Make, execute, and debug your first Bash script Create interactive scripts that prompt for user input Foster menu structures for operators with little command-line experience Develop scripts that dynamically edit web configuration files to produce a new virtual host Write scripts that use AWK to search and reports on log files Draft effective scripts using functions as building blocks, reducing maintenance and build time Make informed choices by comparing different script languages such as Python with BASH Who this book is for If you are a Linux administrator or a system administrator and are interested in automating tasks in your daily lives, saving time and effort, this book is for you. Basic shell scripting and command-line experience will be required. Familiarity with the tasks you need to automate will be helpful.

Mastering Embedded Linux Programming

Configure, manage, and secure a CentOS 7 Linux server to serve a variety of services provided in a sustainable computer's infrastructure. About This Book Learn how to efficiently set up and manage a Linux server using one of the best suited technologies for this purpose, CentOS 7 Personalize your Linux server and familiarize yourself with the latest tools and utilities setup provided by the new CentOS distribution Follow a step-by-step tutorial through the configuration of the requested services with the capacity to personalize them as per your needs Who This Book Is For If you are a Linux system administrator with an intermediate administration level, this is your opportunity to master the brand new distribution of CentOS. If you wish to possess a fully sustainable Linux server, with all its new tools and tweaks, that serves a variety of services to your users and customers, this book is ideal for you. It is your ticket to easily adapt to all the changes made in the latest shift. What You Will Learn Manage CentOS 7 users, groups, and root access privileges Enhance the server's security through its firewall and prevent the most common attacks from penetrating or disabling the server Explore and implement the common, useful services that a CentOS 7 server can provide Monitor your server infrastructure for system or hardware issues Create and configure a virtual machine using virtualization technologies Implement a cloud computing solution on a single node system Get an introduction to the configuration management tools and their usage Discover the importance of the tools that provide remote connection, server service security, and system and process monitoring tools In Detail Most server infrastructures are equipped with at least one Linux server that provides many essential services, both for a user's demands and for the infrastructure itself. Setting up a sustainable Linux server is one of the most demanding tasks for a system administrator to perform. However, learning multiple, new technologies to meet all of their needs is time-consuming. CentOS 7 is the brand new version of the CentOS Linux system under the RPM (Red Hat) family. It is one of the

most widely-used operating systems, being the choice of many organizations across the world. With the help of this book, you will explore the best practices and administration tools of CentOS 7 Linux server along with implementing some of the most common Linux services. We start by explaining the initial steps you need to carry out after installing CentOS 7 by briefly explaining the concepts related to users, groups, and right management, along with some basic system security measures. Next, you will be introduced to the most commonly used services and shown in detail how to implement and deploy them so they can be used by internal or external users. Soon enough, you will be shown how to monitor the server. We will then move on to master the virtualization and cloud computing techniques. Finally, the book wraps up by explaining configuration management and some security tweaks. All these topics and more are covered in this comprehensive guide, which briefly demonstrates the latest changes to all of the services and tools with the recent shift from CentOS 6 to CentOS 7. **Style and approach** This is a detailed and in-depth guide to help you administrate CentOS 7 for the usage of your server's infrastructure and also for personal network security. Each section shows a list of tools and utilities that are useful to perform the required task, in an easy to understand manner.

Linux Hardening in Hostile Networks

Join the Linux Revolution! Newly revised and updated, Mastering Linux, Second Edition is the best all-in-one Linux resource available anywhere. Inside, you'll find everything you need to know to install, configure, use, and optimize this increasingly popular and respected operating system. You'll even find the operating system itself—the Publisher's Edition of Red Hat Linux 7, absolutely free on the enclosed CD! Whatever you want to achieve with Linux, Mastering Linux makes it easy, providing the clear instruction and unique insights of a Linux expert who understands the needs of the non-Unix world. Coverage includes: Installing Linux Configuring and using the GNOME and KDE graphical user interfaces Configuring and using X-Windows v. 4 Using Linux commands Managing files in Linux Connecting to the Internet and e-mailing with Linux Using Netscape 6 for Linux Faxing from Linux Using Linux on a LAN Using Linux as part of a Windows network Connecting and configuring USB peripherals Creating a Linux Web server Setting up and using a Linux mail server Running DOS and Windows applications using Wine Configuring your Linux system with LinuxConf Re-compiling the Linux kernel Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Mastering CentOS 7 Linux Server

Provides instructions on using Webmin, covering such topics as installation, partitions, system logs, firewall configuration, cluster modules, and Webmin modules.

Understanding Linux Network Internals

Red Hat Enterprise Linux (RHEL) is the most popular Linux distribution currently being used and can be deployed on many platforms. Enterprises that have a large number of systems need to be interconnected, configured, and managed effectively. RHEL networking lets you accomplish these tasks easily. This is a highly-detailed guide to help with your deployments on RHEL 7 or CentOS 7. This book, based on RHEL 7.1, will introduce to you the fundamentals of networking your systems. You will learn the use of new consistent names to identify your network cards. Soon, you will move on to configuring the basic plumbing of your network, setting up time, network address assignment, and name resolution. Last, the focus moves to configuring the new kernel-based iSCSI target services on RHEL 7 and using the service to host storage area networks.

Red Hat Linux Networking and System Administration

Implement a SOHO or SMB Linux infrastructure to expand your business and associated IT capabilities. Backed by the expertise and experienced guidance of the authors, this book provides everything you need to move your business forward. Pro Linux System Administration makes it easy for small- to medium-sized businesses to enter the world of zero-cost software running on Linux and covers all the distros you might want to use, including Red Hat, Ubuntu, Debian, and CentOS. Pro Linux System Administration takes a layered, component-based approach to open source business systems, while training system administrators as the builders of business infrastructure. Completely updated for this second edition, Dennis Matotek takes you through an infrastructure-as-code approach, seamlessly taking you through steps along the journey of Linux administration with all you need to master complex systems. This edition now includes Jenkins, Ansible, Logstash and more. What You'll Learn: Understand Linux architecture Build, back up, and recover Linux servers Create basic networks and network services with Linux Build and implement Linux infrastructure and services including mail, web, databases, and file and print Implement Linux security Resolve Linux performance and capacity planning issues Who This Book Is For: Small to medium-sized business owners looking to run their own IT, system administrators considering migrating to Linux, and IT systems integrators looking for an extensible Linux infrastructure management approach.

Linux Administration Handbook

This introduction to networking on Linux now covers firewalls, including the use of ipchains and Netfilter, masquerading, and accounting. Other new topics in this second edition include Novell (NCP/IPX) support and INN (news administration).

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