

Mastering Red Hat Linux 9

by Michael Jang
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INTRODUCTION

"Hello everybody- I am doing a (free) operating system (just a hobby, won't be big and professional)". This was Linus Torvalds' first Linux announcement on August 25, 1991.

Those simple words describe Linux's humble beginning. It was developed as a clone of Unix. Now Linux is fast becoming the major alternative to Microsoft Windows. Linux comes in various distributions like Caldera, Distros, Geekdom, Mandrake SuSe, etc. out of which Red Hat Linux is the leading Linux distribution which includes the basic Linux operating system with a number of free applications. Linux is a stable, inexpensive, reliable, secure, flexible and as user friendly as Windows. One can configure Linux as a server and also as a desktop computer. Red Hat includes a number of additional programs and applications that enhance the capability of Linux as the desktop, for small organizations, or as a server for the enterprise. Software like Samba and Open Office in Linux now make interoperability possible for both users as well as system administrators. Unlike Windows, Linux does not require hardware upgradation for its new versions. It is a relief for those IT managers who use a big chunk of their IT budget in funding Microsoft upgrades or licenses. Linux offers a low cost solution because of its open source. This book, by

Michael Jang helps the user to get the most from Red Hat Linux.

A WALK THROUGH THE CONTENTS

The book is organized into eight parts covered in 30 chapters, each concluding with a summary of the most important concepts.

The first five chapters of the Installing Red Hat Linux Part 1 covers the basic concepts of Red Hat Linux, its hardware preparation and installation. Chapter 1 explains in short the history of Unix and Linux, features of Linux, the role it can play as a desktop, as a small business server and as a server for the enterprise. Chapter 2 gives the details of how to make the computer ready for Red Hat Linux before installation. Chapter 3 and Chapter 4 remove the difficulties faced by a novice to install Linux locally using the GUI, and over a network respectively. Previously discussed installation in chapter is an involved process which requires considerable user input. Chapter 5 explains automatic Red Hat Linux installation on a group of computers using Kickstart.

Part 2 Linux Fundamentals consist of three chapters. Chapter 6 helps the user to get around the Linux directory structure and helps to create, copy, move, delete and link files and directories at the command line interface. It also

BOOK REVIEWS

discusses the most important Linux text editor Vi and introduction of other editors like emacs, pico and joe. File system hierarchy standard, directory structure and skills required to organize Linux file system is covered in Chapter 7, and Chapter 8 reveals the secrets of the shell to new users. It discusses at length the configuration and management of the shell.

Part III Basic Linux Administration concentrates on administrative tools. Administrators of the multi-user system need to know the creation, organization and management of users and groups, which is included in chapter 9. Red Hat Package Manager provides a standardized way to group the software the user needs for various utilities and applications. Chapter 10 details Red Hat Package Manager's features. Chapter 11 talks about configuration and troubleshooting boot process which can help the users to start Linux even when a user have a number of different problems while booting. Chapter 12 explains an easy way to upgrade a kernel. How to automate, manage, and troubleshoot basic services like restarting Samba, activating at different run levels and others are covered exhaustively in Chapter 13. Chapter 14 talks about the different backup methods for protecting the data from various disaster scenarios like loss of a user's key file to complete data erasure and computer damage from an electromagnetic pulse.

X Window Management in Part IV describes basic configuring tools used for managing X Servers and X Clients, working with GNOME, KDE, Using GUI applications, and understanding Red Hat graphical front ends. Chapter 15 discusses the basics of configuring the X Window and troubleshooting the same. Chapter 16 and 17 describes the basic interfaces and utilities of GNOME and KDE GUI desktop environments. Chapter 18 presents number of useful GUI applications, including multiple office suits on either desktop environment. Chapter 19 focuses on the graphical utilities developed by Red Hat that let the user to administer and configure Linux on a computer and network.

Basic Linux Networking in part V covers the concepts of TCP/IP, Managing Linux on LAN securing Linux network. Chapter 20 covers the fundamentals of network, protocol stacks and IP addressing. Chapter 21 explains the network hardware, configuration of a computer on a LAN, and configuration of private and public network. The

fundamentals of network security are covered in chapter 22.

Part VI is dedicated to Linux network administrators. Chapter 23 focuses on configuration of remote access facility. Chapter 24 concentrates on configuring a DNS (Domain Name Service) server and setting up a Dynamic Host configuration protocol, which enables administrator to manage domain IP addresses for TCP/IP networks. Chapter 25 includes the common Unix Print System (CUPS) which provides a common way for Linux and other Unix type operating systems to work with the Internet Print System. It also includes the description of Line Print Daemon (LPD). Chapter 26 talks about mail services and their configuration files.

Part VII Linux File-Sharing Services basically talks about the number of ways to share files in Red Hat Linux and their configuring methods. Chapter 27 includes FTP client and server configurations for file transfer. Chapter 28 provides configuring NFS and NIS for sharing directories and configuration files. Chapter 29 makes Linux computer a part of a Microsoft based network using Samba. Configuration of the system for web services is discussed in Chapter 30. Part VIII is an Appendix detailing a few of the commands that every administrator should know to work at the command line interface.

TARGETED AUDIENCE

This book should be of interest to system administrators IT professional, engineers, at companies using Linux operating system. The book can be used by students in case their course demands Linux system administrators and will also be beneficial to new users who are looking to make better use of their system.

SUMMARY

The author has succeeded in putting lots of information for administrators. The book gives the practical information required to install, configure, secure and administer the latest version of Red Hat's Operating System to suit the specific computing needs. However, users interested in Shell programming and X-Windows programming will have to look elsewhere.