

# Preface

Modern technologists are masters at the art of searching Google for answers. If another system administrator has already encountered (and possibly solved) a problem, chances are you can find their write-up on the Internet. We applaud and encourage this open sharing of ideas and solutions.

If great information is already available on the Internet, why write another edition of this book? Here's how this book helps system administrators grow:

- We offer philosophy, guidance, and context for applying technology appropriately. As with the blind men and the elephant, it's important to understand any given problem space from a variety of angles. Valuable perspectives include background on adjacent disciplines such as security, compliance, DevOps, cloud computing, and software development life cycles.
- We take a hands-on approach. Our purpose is to summarize our collective perspective on system administration and to recommend approaches that stand the test of time. This book contains numerous war stories and a wealth of pragmatic advice.
- This is not a book about how to run UNIX or Linux at home, in your garage, or on your smartphone. Instead, we describe the management of production environments such as businesses, government offices, and universities. These environments have requirements that are different from (and far outstrip) those of a typical hobbyist.
- We teach you how to be a professional. Effective system administration requires both technical and “soft” skills. It also requires a sense of humor.

## THE ORGANIZATION OF THIS BOOK

This book is divided into four large chunks: Basic Administration, Networking, Storage, and Operations.

Basic Administration presents a broad overview of UNIX and Linux from a system administrator's perspective. The chapters in this section cover most of the facts and techniques needed to run a stand-alone system.

The Networking section describes the protocols used on UNIX systems and the techniques used to set up, extend, and maintain networks and Internet-facing servers. High-level network software is also covered here. Among the featured topics are the Domain Name System, electronic mail, single sign-on, and web hosting.

The Storage section tackles the challenges of storing and managing data. This section also covers subsystems that allow file sharing on a network, such as the Network File System and the Windows-friendly SMB protocol.

The Operations section addresses the key topics that a system administrator faces on a daily basis when managing production environments. These topics include monitoring, security, performance, interactions with developers, and the politics of running a system administration group.

## OUR CONTRIBUTORS

We're delighted to welcome James Garnett, Fabrizio Branca, and Adrian Mouat as contributing authors for this edition. These contributors' deep knowledge of a variety of areas has greatly enriched the content of this book.

## CONTACT INFORMATION

Please send suggestions, comments, and bug reports to [ulsah@book.admin.com](mailto:ulsah@book.admin.com). We do answer mail, but please be patient; it is sometimes a few days before one of us is able to respond. Because of the volume of email that this alias receives, we regret that we are unable to answer technical questions.

To view a copy of our current bug list and other late-breaking information, visit our web site, [admin.com](http://admin.com).

We hope you enjoy this book, and we wish you the best of luck with your adventures in system administration!

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