

## Introduction

Welcome, and thank you for taking a look at this book! Unlike the vast array of networking books written by geeks for geeks, this book was written for you and for anyone who wants to understand the computer networking phenomenon that has taken the world by storm. (In other words, it's by geeks for nongeeks.) We understand that the vast majority of people working in this industry are not networking experts and that it is difficult to understand complex technical and business issues before knowing the answers to such questions as “How does the web work?,” “What is a router?,” and “What is an IP address?”

Whether you are a home computer user who has just purchased a broadband Internet connection or a company executive who wants to understand what your IT staff is talking about, this book is for you.

If you've decided that you want to make a career change, or if you are in school pursuing a Cisco certification, we believe that this book will serve both as a good primer, introducing the concepts of networking in clear and simple terms, and as a useful reference book as you grow in your career.

## What's New in This Edition?

Five years ago, when Paul Della Maggiora and Jim Doherty wrote the first edition, we were trying to fill a gap in the market with a book that explained a broad selection of networking technologies and concepts for the beginner or nontechnical person. Upon sharing our early work, we realized we might be on to something. More talks with college interns, Cisco Academy students, and nontechnical executives at Cisco customers indicated demand for a show-me-what-it-is type of book. This book provides at-a-glance text and illustrations that explain a particular concept or technology in plain and simple language. The material illustrates how these concepts relate to our everyday lives.

We are pleased with the reception the book has received since it was first published. We have received a great deal of positive feedback both from our intended audience and, much to our surprise, from very technical people as well. In fact, the book has had enough interest that we were approached to write a second edition to cover all the new technologies that have come about in the last five years. After all was said and done, about half of this book ended up being new.

Among the biggest additions to this version are the topics covering security, communication tools, and wireless technologies. Security has become one of the biggest areas of investment for networking as companies attempt to protect their network and data from ever-increasing threats and attacks. Communication tools have also changed quite a bit in five years, as both voice and video tools have become more integrated and more sophisticated. Finally, wireless is everywhere now, and users expect all the networking tools on the wired network to be on the wireless network as well.

Another change in this book is that Neil Anderson has joined the writing team. Neil is the coauthor of four other *Networking Simplified* books that we have written since the original release of *Cisco Networking Simplified*. Neil is a great addition to the team and brings a wealth of expertise and insight to this edition.

## So How Do I Use This Thing?

The book is divided into nine theme-based parts, each with several chapters covering a network concept or technology. Each chapter contains some or all of the following: a part summary, topic at-a-glance pages, and whiteboard illustrations of relevant concepts. The part summary provides a quick and easy introduction to the topic, so you should generally read it first. Useful for future reference are the topic at-a-glance pages, which illustrate core concepts. And the whiteboard illustrations demonstrate important concepts simply and graphically.

The flow of this book is a bit different from the first time around. In this edition, we took a building-block approach:

- Part I: Networking Fundamentals
- Part II: Networking Infrastructure
- Part III: Network Design
- Part IV: Network Availability
- Part V: Securing the Network
- Part VI: Data Center and Application Networking
- Part VII: Unified Communications
- Part VIII: Mobility
- Part IX: Virtualized Networks

We believe that this approach helps you get from the basics to the more advanced topics more easily. This approach also makes it easier to jump directly into a single topic of interest and understand the big picture.

The illustrations and descriptions of the topics serve to answer the primary questions “What is it?”, “Why should I care?”, and “What problems need to be solved?”. We use “big animal” pictures to explain many of the concepts and avoid the temptation to dive into nitty-gritty details. If you are reading this book, you need to know, for example, what a router does, but not how to actually program one.

The second time around, we had as much fun as the first time through writing and illustrating this book. We also had the benefit of experience and are hopeful that we put it to good use. We hope you find this book both useful and entertaining. If it ends up being your primary reference for networking, so much the better.