

style is fluid and consistent. The authors claim that the book does not require specific prior experience other than basic technical knowledge – a claim the authors live up to by providing a solid foundation in the first two chapters – including network types, network characteristics, network protocols and basic network architecture.

Using detailed examples and diagrams throughout the book, the authors provide a good learning experience for diverse types of readers – whether you are visual or verbal learner. Chapter one, Foundations, has an abrupt start by diving right into time and frequency analysis, including the corresponding mathematical formulas. For someone who does not have her hands in this detailed math on a regular basis – this was a bit of a shock to my system on the third page of the first chapter. Excepting that, the detailed diagrams helped to fully explain the concepts. The exercises are based on open source technology, namely Linux, which would allow most of the readers to complete the exercises at relatively low cost. I would have liked to see some discussion of how some of the examples/exercises might change in other operating systems. While I understand the author's reasons for using open source, in order to truly bridge to professional experiences, other operating systems must be addressed in some manner.

A key part of each chapter is discussion the current IEEE industry standards and providing the context and history behind the standard's creation. Many of the later chapters on Ethernet, wireless networks, LANS, Routers and Wide area networks had extensive discussions on the professional IEEE standards associated with network technology. The authors provide interesting discussions about the creation of each standard and the issues that have led to new and updated standards. The number of standards involved with networking technologies is more expansive than I had previously realized. The Reference section provides the necessary website URL's to further research each standard.

I appreciated the author's challenge questions to think about the future of networking technology, whether in wide area networks in urban and rural settings, as well as personal area network technology and how we use our electronic devices today. As our current network infrastructure ages (your own local network, or the national/global networks that connect us), this book provides a good foundation and real-world exercises to start thinking about how network technology will need to change to support applications and communication of the future.

Reviewed by Anita Bateman, San Antonio, TX,
anita@batemanventures.com

Reviews

Hands-On Networking – From Theory to Practice

Maria Luisa Merani, Maurizio Casoni, and
Walter Cerroni

DOI: 10.1145/1943371.1943377

<http://doi.acm.org/10.1145/1943371.1943377>

Hands-On Networking – From Theory to Practice is written by Maria Luisa Merani, Maurizio Casoni, and Walter Cerroni, and published by Cambridge University Press, copyright 2009, ISBN 978-0-521-86985-0, 259pp., \$75.

The author's goals in writing *Hands-On Networking – From Theory to Practice* were to provide a thorough foundation in the networking field, to develop the reader's skills for network design and to provide a bridge between teaching and professional communities. With only a few exceptions, they met their goals. I initially took on this review in order to update my personal knowledge of networking. This book definitely helped refresh my knowledge, taught me about networking standards and will serve as a great reference manual in my technical library.

Each chapter is organized in a similar manner – covering the foundational concepts and standards, then diving into examples and exercises for the reader. Even with three authors, the writing