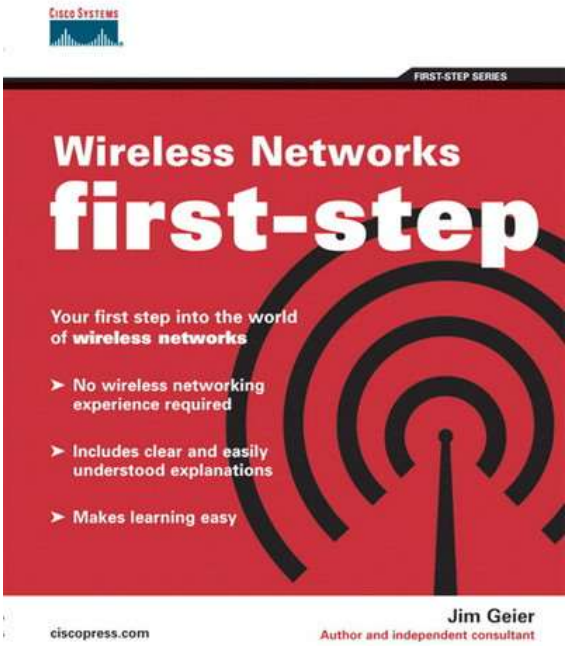
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BOOK

Wireless Networks first-step

Write the first review

By Jim Geier



Start

TIME TO COMPLETE:
5h 13m

LEVEL:
Beginner

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Wireless Networks

PUBLISHED BY:
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PUBLICATION DATE:
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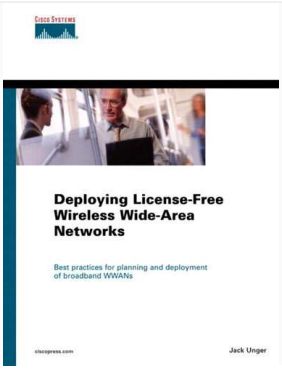
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Page 002 of 292

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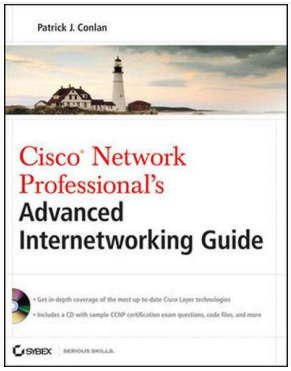


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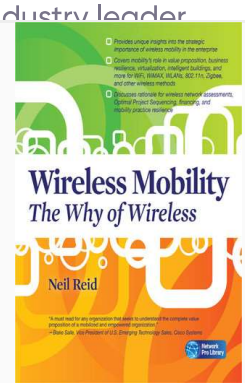


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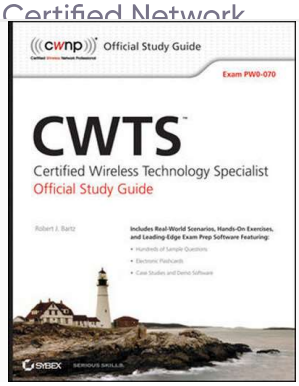
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Exhibit 1010
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Page 012 of 292

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Jim Geier is the founder and principal consultant of Wireless-Nets, Ltd. (**www.wireless-nets.com**), an independent consulting firm, which assists companies with the development and deployment of wireless LAN products and systems. His 20 years of experience include the analysis, design, software development, installation, and support of numerous client/server and wireless network-based systems for enterprises, airports, homes, retail stores, manufacturing facilities, warehouses, and hospitals throughout the world.

Jim is a voting member within the Wi-Fi Alliance, responsible for certifying interoperability of 802.11 (Wi-Fi) wireless LANs. He served as chairman of the IEEE Computer Society, Dayton Section, and chairman of the IEEE International Conference on Wireless LAN Implementation. He has been an active member of the IEEE 802.11 Working Group, responsible for developing international standards for wireless LANs. Jim is an advisory board member of several leading wireless LAN companies.

Jim is the author of several books including Wireless LANs (SAMS, ISBN: 0672320584), Wireless Networking Handbook (MTP, ISBN: 156205631X), and Network Reengineering (McGraw-Hill, ISBN: 007023034X), as well as numerous articles. He is also editor-in-chief of **MobilizedSoftware.com**, an online publication assisting developers with implementing mobile applications.

Jim's education includes a bachelor's and master's degree in electrical engineering and a master's degree in business administration.

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Exhibit 1010
Page 014 of 292

Exhibit 1010
Page 015 of 292

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At Monarch, Ed has developed client/server applications, visited customer sites for analysis and problem solving, and provided interna-

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Ed lives with his wife, Michelle, and his son, Colin, in Dayton, Ohio. When not tinkering with PCs and networks at home, he enjoys model railroading, railroad memorabilia collecting, golfing, traveling, and spending time with his family.

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Exhibit 1010
Page 017 of 292

Acknowledgments

I'd like to offer thanks to my son, Eric Geier, for assisting me with the research for this book. Eric is a member of the technical staff of my consulting company, Wireless-Nets, Ltd., where he researches and analyzes wireless network technologies, performs wireless LAN analysis, and develops computer-based training courses.

Eric is a Certified Wireless Network Professional (CWNP) and founder of **www.wirelessnetworks4homes.com**, a website focusing on the deployment of wireless LANs for homes and small offices.

Exhibit 1010
Page 018 of 292

Introduction

For several decades, people have been using computer networks to interconnect personal computers and servers in companies, colleges, and cities. An evolution has been taking place, however, toward using networks wirelessly. In fact, today wireless interfaces are available to utilize network services that allow us to use e-mail and access applications, and browse the Internet from just about anywhere.

These wireless applications are enabling people to extend their workplace in a way that results in significant benefits. Business travelers, for example, are able to respond to e-mails while waiting for a flight at an airport. A homeowner can easily share a common Internet connection among multiple PCs and laptops without running cabling. This book explains the underlying technologies that make these types of applications possible.

Goals of This Book

The intent of this book is to offer a basic introduction to wireless network applications, components, and technologies. These concepts provide a solid basis for understanding various wireless network topics in more detail. After reading this book, you'll be able to effectively continue a study of specific wireless networks.

Who Ought to Read This Book

This book was written for anyone beginning a study of wireless networks. There is no need for readers to have a technical background. CEOs, managers, and business owners will benefit from reading this book, as will engineers and technicians. Even users wanting to under-

stand the inner workings of wireless networks will find this book interesting.

How This Book Is Organized

This book covers all aspects of wireless networks, with emphasis on the unique attributes of wireless systems. The first three chapters provide the basic building blocks for a better understanding of the different types of wireless networks that the subsequent chapters describe. The final chapter offers details on securing wireless networks.

- **Chapter 1**, "The Wireless World: An Introduction to Concepts"— This chapter fully defines a wireless network and briefly defines the various types. Many examples of wireless network applications are given with discussion of resulting benefits.
- **Chapter 2**, "Wireless System Architecture: How Wireless Works"— This chapter offers a broad explanation of the various components of a wireless network. By illustrating how information flows through the network, this chapter provides an excellent basis for understanding how different types of wireless networks operate.
- **Chapter 3**, "Radio Frequency and Light Signal Fundamentals: The Invisible Medium"— This chapter details how radio frequency and light signals carry information through the air medium. These are the primary elements that define a wireless network.
- **Chapter 4**, "Wireless PANs: Networks for Small Places"— This chapter explains the components, technologies, and configurations of a wireless personal-area network (PAN).
- **Chapter 5**, "Wireless LANs: Networks for Buildings and Campuses"— This chapter explains the components, technologies, and configurations of a wireless local-area network (LAN).
- **Chapter 6**, "Wireless MANs: Networks for Connecting Buildings and Remote Areas"— This chapter explains the components, technologies, and configurations of a wireless metropolitan-area network (MAN).

Exhibit 1010
Page 020 of 292