

Over-the-Road Wireless

FOR
DUMMIES®

by E. Phil Haley



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***Over-the-Road
Wireless***

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About the Author

E. Phil Haley is a truck driver and equipment operator living in Anchorage, Alaska, and writes articles about wireless Internet access and security. Phil first started driving trucks in September 1979, and his most recent over-the-road experience has been with Leavitt's Freight Service of Springfield, Oregon, where he enjoyed the challenge of hauling long loads. During his over-the-road adventures, he travels with two laptops (one for work and one for fun), a handful of wireless adapters, more antennas than any one person should own, and a wireless signal amplifier (just in case). When he's not driving or surfing the Web, he can usually be found in one truck stop or another extolling the virtues of wireless Internet access to anyone in earshot or helping a new convert get set up for wireless Net surfing. Phil also maintains (or, more often, fails to maintain) theCyberTruckStop.com.

Dedication

This book is dedicated to the memory of Darrell R. Meyer; friend, mentor and trucker extraordinaire. 1948 - 2004

Author's Acknowledgments

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Introduction

The other day I was watching *The Andy Griffith Show*. It was an episode I've probably seen ten thousand times. (You think I'm exaggerating, don't you? There's a reason I own *TAGS* on DVD.) Andy was using a phone stuck on the wall in his kitchen to talk with Aunt Bea, who was in Mt. Pilot. In order to let Opie talk to her, Andy had to lift him up to the mouthpiece. When I first started lugging a laptop around the country with me, I felt kind of like Andy and Opie; I had to bring the laptop to the phone if I wanted to connect to the Internet — and the phone wasn't always located in the most comfortable or convenient places.

All that changed for me when truck stops began offering the possibility of making a wire-free connection to the Internet. Suddenly, from almost anywhere in the facilities or on the lot, I could get online easily (what a concept).

I love the freedom afforded me by having the option of making a wireless connection to the Internet — and now, whether you're traveling the highways in a truck or RV, using the facilities of (say) a campground or truck stop, it's possible for you to enjoy that freedom, too.

About This Book

There are, quite literally, millions of books — and they collectively contain more information than any one person could ever hope to comprehend. Just for the sake of argument, though, let's say you had, in fact, both read and comprehended all that information. . . . So what? Knowledge is only half the battle. At some point in time, for knowledge to be an asset, you've got to get up out of your chair, walk out of the classroom, and actually *do* something with that information.

Among this book's goals is a dual purpose: (1) providing you with both the information you need about the whys and wherefores of making a wireless Internet connection in an over-the-road environment, and (2) showing you some ways you can use that knowledge to meet specific Wi-Fi needs in the real world.

By the way, this book does make reference to a lot of Wi-Fi paraphernalia — including hardware, software, and services that can make your over-the-road lifestyle easier, better, or more fun (at least where computers or electronics are concerned). But don't think you absolutely must have everything all at once. I recognize that everyone's needs and desires are different; you might need or want some items now, some later, and some never. I offer all these marvels for your consideration — and I do my best to provide enough information so you can decide whether any product, program, or service deserves a place in your Internet toolbox.

Foolish Assumptions

Ever since I was a kid — after my dad first showed me how the word “assume” breaks down — I've been hesitant to make assumptions, believing them all to be foolish. But I'm going out on a limb here; for the sake of writing a useful book, I assume that

- ✓ You're seriously considering the inclusion of a computer in the list of equipment that accompanies you in your over-the-road travels.
- ✓ Your computing experience ranges from “Yes, I'm aware that computers do exist” to “I use a computer at home and in my business every day.”
- ✓ You want to make secure, wire-free connections to the Internet from various locations on or near the highways and byways of our great country.

How This Book Is Organized

I first read John Steinbeck's *The Grapes of Wrath* while in high school and, since that time, I've wanted to write The Great American Novel. This isn't it, but that's okay, because it isn't a novel (great or otherwise), and you don't have to read it like one. If you like, you can start at the end or read the chapters you find most interesting first. The whole book is a beginning, of sorts — and, as such it doesn't really have an ending as long as your over-the-road adventure goes on. (Whoa. Deep.) I did, however, organize the parts and chapters in a way that builds logically, to a certain extent, from one subject to another — so if you're a beginner (or just new to Wi-Fi), you might want to read the book one chapter after the other.

Additionally, even if you're relatively experienced, you might want to read chapters containing information that you're familiar with. After all, in the words of R. Buckminster Fuller, “You can never learn less; you can only learn more.”

This book is broken up into seven parts, each part is made up of two to four chapters — and that'd be them coming up now. . . .

Part I: The Wonderful World of Wireless Fidelity

If you're just getting your feet wet with wireless Internet connectivity, you may have questions ranging from "How does wireless work?" to "How do I get started?" In this part, I help you to

- ✓ Discover the basics of wireless Internet access, as well as ways in which it can enhance your over-the-road computing experience (Chapter 1).
- ✓ Identify the various wireless standards and decide which standard most suits your needs (Chapter 2).
- ✓ Find and buy hardware devices that are especially well suited for use in your over-the-road environment (Chapter 3).
- ✓ Get your wireless gear set up and running smoothly (Chapter 4).

Part II: Surfing the Net Unplugged

After you've got your gear sorted out and set up, you're ready to surf the Net without wires. In this part, I help you to

- ✓ Identify and use the directories and devices that can get you to friendly locations from which to make a wireless connection to the Internet (Chapter 5).
- ✓ Set up an account, get connected at the hotspot of your choice, and handle issues like troubleshooting and e-mail (Chapter 6).

Part III: Bridging the Wireless Gap

Even though wireless Internet access is a rapidly spreading phenomenon, there are still a few gaps in coverage. In this part, I take a look at some methods you can use to make an alternate connection. For example, I help you to

- ✓ Discover some ways cellular data services and equipment can help you connect your computer to the Internet when there's not a hotspot — or even a building — in sight (Chapter 7).

- ✓ Use dialup effectively, efficiently, and enjoyably when it's your only hope of getting connected. I also tell you about a product that can make dialup a lot more convenient to use. (It's all in Chapter 8.)
- ✓ Explore the potential of using a satellite to make your connection to the Internet (Chapter 9).

Part IV: Securing Your Information

When you've made a wireless Internet connection, it's nice to know there are steps you can take to make it secure. In this part I show you how to

- ✓ Identify and neutralize threats to your security (Chapter 10).
- ✓ Easily encrypt your data and information (Chapter 11).
- ✓ Make a secure connection, from a remote location, to a computer at your home or office (Chapter 12).

Part V: Taking Care of Business

Communication and paperwork are tenets of business — and, by using your computer and the Internet, your over-the-road office can help you be more efficient and increase your profits. In this part, I explore:

- ✓ Making low-cost calls over the Internet (Chapter 13).
- ✓ Finding and using various tools that can help you increase your income, save time, save more money, and maintain records (Chapter 14).

Part VI: Entertaining Electronics

You can't spend *all* your time working! In this part, I help you find a few ways to relax and have some fun with your electronic devices. For example, I tell you a little bit about

- ✓ Getting and using satellite radio (Chapter 15).
- ✓ A few ways to use your computer as an audio-and-video entertainment center (Chapter 16).

Part VII: The Part of Tens

Every *For Dummies* book includes a Part of Tens, and this one's no exception. In Chapters 17 and 18, I take a look at ten (or so) ways to accessorize your over-the-road electronics and ten free software applications that can enhance your computing experience. Check 'em out.

Conventions Used in This Book

Fortunately, for both you and me, the editors of this book have taken great pains to ensure that certain *conventions* are consistently applied throughout this book. Conventions assist in avoiding confusion by standardizing certain elements of a book. A few of the conventions used here include the following:

- ✓ New terms — such as *conventions* — are presented in italics and then either defined or explained in the text that follows.
- ✓ A *URL* (Web address), or anything you need to type into a text-entry field, is presented in monofont; like this: `www.jiwire.com`.
- ✓ Italics are also used as placeholders in a URL, and might look like this: `www.somewebsite.com`.
- ✓ Arrows indicate a continuity of activity, usually a sequence of mouse clicks. Choose File→New, for example, means to click the File menu and then choose the New option on that menu.

Icons Used in This Book



The Tip icon marks tips (duh!) and shortcuts that you can use to make finding, buying, setting up, or using Wi-Fi-related hardware, software, utilities, or accessories easier.



The Remember icons mark information that's especially important to know. To siphon off the most important information in each chapter, just skim through these icons.

6

Over-the-Road Wireless For Dummies



The Technical Stuff icon marks information of a highly technical nature that you can normally skip over (until things get, well, *technical*).



The Warning icon tells you to watch out! It marks information that may save you headaches, heartaches, time, or even money.

Part I

The Wonderful World of Wireless Fidelity

The 5th Wave

By Rich Tennant



"Yes, it's wireless, and yes, it weighs less than a pound, and yes, it has multiuser functionality...but it's a stapler."

In this part . . .

The central theme is getting set up with all the gear you need to make a wireless Internet connection. Of course, before you dash out the door on your hunt for hardware, you want to have a basic understanding of the way Wi-Fi (wireless fidelity) works. Although my well-informed and highly entertaining sock puppets refused to assist me (something about putting pens in their mouths), I promise that by the time you get done reading Chapters 1 and 2, you'll know more about Wi-Fi than do most people (or sock puppets). Armed with this knowledge (and with the help of Chapter 3), you can plunk down your cash with confidence. After you get your money spent and bring the doodads home, you can use Chapter 4 to get everything set up and fully operational.

Chapter 1

Taking the Wi-Fi Highway

In This Chapter

- ▶ Discovering Wi-Fi on the highway
 - ▶ Looking at your choices
 - ▶ Breaking down the parts of wireless access
 - ▶ Meeting your over-the-road wireless needs
-

Even though I think anybody choosing an over-the-road lifestyle has got to have adventurer's, explorer's, or maybe even pirate's blood running through their veins, I appreciate the fact that few are those who blaze new trails through unknown territory. Myself, I'm no Captain Kirk; adventure or not, I prefer to go where at least a few people have gone before. I always get a little nervous when kids come running out of their houses to watch the big truck go by. Well, the Wi-Fi highway's been paved, the kids have become bored with the passing traffic, and it looks like it's here to stay.

If it's new to you, then you might feel a little anxious about taking the on-ramp. Don't be; the weather's great, the curves and slopes are gentle, and the scenery's always interesting. Some parts of the highway — even though it's fairly new — are being repaired and improved upon; other parts, though passable, are still under construction. Just think of me, someone who's been down this road before, as a fellow traveler.

Why Wireless?

In the sociology of science, there are two competing theories regarding technological development. One of them, the *genius theory*, holds the view that inventors or scientists make discoveries independent of any outside influences, just because they're so darn smart. The other theory, known as *deterministic theory*, holds the view that social and environmental forces, the needs and desires of the people, *require* that inventions or discoveries be made, and that the individual making them is incidental to the process.

Personally, I think a combination of genius and environment — both social and technological — must be necessary for invention.

For example, wireless technology — from home phones to cellphones to computers — has been developed (if not by geniuses, then at the very least by people a whole lot smarter than me) in response to the unmet needs and desires of those wishing to roam freely while staying connected. Wireless phone handsets meet the needs of those who want to leave the kitchen or bedroom while conversing; cellphones meet the needs of those desiring freedom of travel while maintaining their ability to reach out and touch — or be touched by — someone. That's environment and genius coming together, meeting the needs of the populace; so it is with Wi-Fi.

Exploring the advantages

I'm thinking that shortly after the first phone cord was connected to a computer (tethering both it and the user to a small and specific radius), somebody — possibly an ungrateful son or a meddling daughter-in-law — began trying to figure out how to cut the cord. When the first laptops hit the market, the movement toward a wireless Internet connection hit high gear. Included among the needs and desires that wireless Internet connection technology strives to meet are the following:

- ✔ **Convenience:** I think this is the most attractive of all wireless Internet attributes. When using a dialup connection, it's sometimes difficult to find a suitable spot from which to connect the cord. Because Wi-Fi does away with the cord or cable, everyplace within range of the wireless access point is suitable for use. (I explain wireless access points later in this chapter.)
- ✔ **Privacy:** To a certain extent, this attribute goes hand-in-hand with freedom and convenience. I've seen RV parks that require dialup computer users to sit in the office or laundry room, and truck stops usually relegate dialup users to a noisy coffee shop or noisier TV room. When using Wi-Fi you can, if you choose, sit comfortably in the privacy of your own home on wheels.
- ✔ **Speed:** Download speeds for wireless broadband Internet connections are typically as much as ten to twenty times faster than dialup. In Chapter 2, I discuss Wi-Fi data-transfer speeds in greater detail.
- ✔ **Ease of use:** Yeah, okay, I hear you: "If it's so easy to use, why do I need a book?" Well, it really is easy to set up and use, but as with anything, there's a learning curve. Besides, I've got to make a living somehow.
- ✔ **Reasonable cost:** If you've already got a laptop or PDA, you can easily and inexpensively adapt it for wireless Internet access. (I tell you more about this in Chapters 3 and 4.) And Internet services, which I talk about in Chapter 6, are usually reasonably priced, too.