

**The**

# INTERNET

**telephone toolkit**



**INCLUDES CD-ROM**

**Learn how to save hundreds  
of dollars on long distance  
calls using the Internet!**

**Includes all the software  
you need to get started now!**

**Jeff Pulver**

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# The Internet Telephone Toolkit

Jeff Pulver



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“Here’s a book that will tell you everything you need to know about how to make telephone calls over your PC. No one knows voice on the Net technology like Pulver.”

Josh Quittner, *Time Magazine*

“Jeff Pulver is the Thomas Jefferson of internet telephony: philosopher, architect, advisor, diplomat, inventor, analyst, and guide to all those intrigued by the promise and power of this remarkable field.”

Fred Hapgood, Contributor, *Wired*

“Jeff Pulver is the preeminent authority on Internet telephony. He offers deep insights into all aspects of this industry, from the technology to the business partnerships to the nature of the marketplace. He knows the things that will determine which products will succeed and which will be left by the wayside.”

Gary Welz, *Internet World*

“Jeff Pulver is one of the great pioneers of Internet telephony. When the history of communications in the twentieth century is written, he’ll merit pages to himself. His explanations of the technology, and the anecdotes he wraps them up in, are always pithy and amusing—and he has a great populariser’s touch.”

Tim Jackson, *Financial Times*

“Jeff Pulver has consistently been on the leading edge of Internet politics, technology, and communications. Once upon a time, there was *Steal This Book*. Today, we have Jeff Pulver’s version of *Steal This Internet Phone!*”

Robert Knight, Host of the *Free Speech Radio Show* on WBAI, New York City

“If successful, Internet telephony could undermine the economics of the international telecommunications model. Jeff Pulver has been at the forefront of this movement.”

Kenneth Hart, *Communications Week*

“Long distance phone companies circle the wagons when Jeff Pulver is on the loose. From Taipei to Tel Aviv, Pulver’s known as the most knowledgeable practioner of Internet telephony.”

Art Kramer, *The Atlanta Constitution*

“Jeff Pulver’s intuitive understanding and passion for Internet telephony is a gift to all of us. Months before even its opponents understood the promise of telephony, Pulver knew its potential. And Pulver can explain it even to me!”

Frank Barnako, CBS Radio Network, Washington, D.C.

“Jeff Pulver is one of those rare citizens that help shape society. In a super-dramatic environment like the Internet, Jeff is the Super-Citizen, devoting endless time and effort to community work. At the beginning of 1995 when VocalTec pioneered Internet Phone and made the free global voice communication idea into reality, Jeff stepped forward as a private citizen to champion this exciting technology.”

Elon Ganor, CEO, VocalTec, Inc.

“The Internet is about communication, and it isn't just text anymore! Jeff Pulver has been an innovator and an advocate for the technology that is allowing people all around the world to communicate by voice over the Net. To call him tireless would be an understatement. His knowledge, drive, and enthusiasm are helping to shape the convergence of computers and communication.”

Fred Fishkin, Host and Producer of “Bootcamp, a Report on Computers & Technology,” heard on CBS Radio.

# **The Internet Telephone Toolkit**

*For Dylan and Jake,*

*Love,*

*Dad*



# Acknowledgments

This book would not have happened were it not for my editor, Terri Hudson, and her follow-up and persistence. Terri really was an absolute pleasure to work with and I've learned from Terri what it really takes to get a book ready for production.

I'd like to thank the entire team at John Wiley & Sons for working with me to get this book published. In addition to Terri, I'd like to thank senior managing editor, Frank Grazioli, and associate editor Mike Green, who helped master the enclosed CD-ROM.

When I look back at all of the people who influenced me in writing this book, I feel compelled to acknowledge the following people:

My wife, Risa, for her encouragement and being there for me whenever I needed. Risa, thanks for bearing with me and my obsession with the Net.

My grandparents Saul, Tessie, and Shirley for their encouragement.

My parents Jeanne and Howard, for introducing me to computers and ham radio at an early age.

My sisters Lauren and Michele, for bearing with my ham radio indulgences, including those during our family vacations. (CQ DX, CQ DX, CQ DX).

Josh Quittner, who may not realize it, but was the one who first introduced me to CU-SeeMe through his weekly column in *Newsday*. It was here that I learned about the launch of Internet Phone.

Hugh Hamilton, for helping me test some of the telephony products in the book at two in the morning.

Marshall Caro, James Talvy, Ben Lo, and Alex Schmidt, for teaching me everything I needed to know about UDP but was afraid to ask.

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All of the readers of the "Pulver Reports" Web pages at pulver.com (<http://www.pulver.com>)

All the people I've met on ham radio and the Net these past few years who have influenced me in conversations and in e-mail exchanges.

And my sons Dylan and Jake, who were my inspiration for writing this book.

# Preface

If you're interested in learning how you can make long distance phone calls over the Internet for *free*, read on. This book gives you the background information to what "Internet phoning" is all about. It also provides detailed information and insider tips on the most popular internet telephony products currently available. I've included a CD-ROM containing many of the popular Internet Telephone software products so you can start calling . . . today!

The Internet has really started to affect our everyday lives. The next time you open a newspaper and look for a current movie, take a look at all of the World Wide Web pages that are referenced in the movie ads. Ready or not, URLs, Web page references, and e-mail addresses are as commonplace as the telephone number.

With the enormous growth of the Internet, new and exciting technologies have started to emerge. Internet telephony is one of them. And like the Internet itself, Internet telephony is pretty easy to do. Today you really don't need any special equipment to start talking over the Internet. If you've got a multimedia PC, microphone, the right software, and a connection to the Internet, you're ready to *speak* with someone over the Net.

I wrote this book with the hope of sharing some of my personal enthusiasm for Internet telephony; when it comes to Internet telephony, I've even been called an evangelist. Some people just call me obsessed. But like it or not Internet telephony has already rattled the cages of the global telecommunications

industry and might just be the most significant way to ultimately reduce the cost of your long distance phone calls.

Chapters 1 through 4 provide the background and history of Internet telephony. I also include an overview of some of the common problems you're likely to experience when first using some of the products. In Chapter 4, I discuss some of my predictions for future uses of Internet telephony. Along the way you'll also find information pertaining to my own personal history with these enabling technologies.

Chapters 5 through 12 focus on the following products and how to use them:

- Internet Phone
- WebPhone
- WebTalk
- TeleVox
- CoolTalk
- FreeTel
- NetMeeting

Chapter 13 talks about other products like VDOPhone, PowWow, StreamWorks, and many more.

This book is for you if you are new to Internet telephony or perhaps the Internet and want to learn more about the concepts that you've heard a lot about in magazines and in the news. This book is also for those of you who want to use the products described in this book to make free long distance phone calls within your own personal calling circles. And yes, if you're involved in business and want to use the Internet to lower the long distance costs between you and your business partners, read on.

I was one of the early users of Internet telephony software products and along the way I've tested and evaluated each of the various Internet Telephone software products that have become available since February 1995.

Within a week of the introduction of the first wave of Internet Telephone software products, I set up several mailing lists where users of these products could get together to discuss the merits of them, and I also established several Web pages dedicated to this and other emerging and enabling technologies. Please feel free to visit <http://www.pulver.com> to catch up on all of my latest interests and activities.

With this book you will gain the insider's track to who the various players are in this marketplace and how you and your business partners, friends, and family members can jointly start talking on the Internet, start having some fun and save a significant amount of money on your long distance phone bills.

JEFF PULVER

[jeff@pulver.com](mailto:jeff@pulver.com)

August 1996

# Contents

<b>Acknowledgments</b> .....	<b>.xvii</b>
<b>Preface</b> .....	<b>.xix</b>
<b>Chapter 1: The Concept: Free Long Distance Calling!</b> .....	<b>.1</b>
How Internet Telephony Works .....	.2
Who Uses Internet Telephony? .....	.3
The Origins of Internet Telephony .....	.5
Netscape Steps In .....	.8
Easy to Use and Painless to Install .....	.9
Perfect Timing .....	.10
The Internet Telephony “Sound” .....	.12
Differences Between Internet Telephony and CB/Ham Radio .....	.12
Nickname = Callsign .....	.13
Internet Relay Chat (IRC) Servers .....	.14
Directory Services .....	.15
IP Addresses .....	.16
Other Internet Telephony Product Features .....	.17
What Do the Phone Companies Say about Internet Telephony? .....	.18

<b>Chapter 2 Getting Started</b>	<b>.21</b>
Where to Begin	.21
No Brand Loyalty	.23
Use the Right Equipment	.24
Really Getting Started	.24
What Are the General System Requirements?	.24
Tools of the Trade	.28
Specialized Headsets and Handsets	.28
Microphones	.31
Speakers	.32
Sound Cards	.33
Get on the Net!	.36
<b>Chapter 3 Typical Problems with Internet Telephony</b>	<b>.37</b>
The Top Ten Problems with Internet Telephony	.37
Most Frequently Asked Questions (FAQs)	.39
<b>Chapter 4 The Future of Internet Telephony</b>	<b>.45</b>
Use of Internet Telephony Within	
Corporate Calling Circles and Networks	.46
Internet Telephony and Electronic Commerce	.47
The Growth of Voice Mail Delivered over the Internet	.48
The Convergence of Interoperability and Commercial Standards	.48
The Free World Dial-Up Experiment	.49
What About Commercial Versions of FWD?	.54
What About AT&T and Other Traditional Long Distance Providers?	54
Who Uses Internet Telephony Today?	.55
<b>Chapter 5 Internet Phone: The Market Leader</b>	<b>.59</b>
New Features Introduced with Internet Phone 4.0	.60
IPhone 4.0 Sounds Different	.61

More General Topics .....	.61
The Global On-line Directory .....	.62
Muting Capabilities for Microphone and Speakers .....	.63
Voice Mail .....	.63
The Internet Phone Chat Window and Whiteboard .....	.64
Audio Configuration .....	.65
Directory Services-Based Approach .....	.66
Installing Internet Phone .....	.67
Internet phone Features .....	.69
Setting up the Internet Phone audio (for Internet Phone 4.x only). .	.70
Private Topics .....	.71
Connecting to an Internet Phone Server .....	.71
Connecting via Internet Phone 2.x and 3.x .....	.71
Connecting via Internet Phone 4.0 .....	.71
Making a Call .....	.72
Calling a Person using Internet Phone 2.x or 3.x .....	.72
Internet Phone User Notes and Registration Tips .....	.73
<b>Chapter 6 Internet Phone Usage Tips: Questions and Answers .....</b>	<b>.75</b>
General Internet Phone FAQs .....	.76
Internet Phone Bandwidth Notes .....	.78
Internet Phone Network Statistics .....	.79
Incoming Packets .....	.79
Outgoing Packets .....	.80
Average Round-Trip Delay .....	.80
Connection Timeouts .....	.83
Internet Phone and Sound Cards .....	.84
Internet Phone and Microphones .....	.84
Internet Phone User Comments on Microphones .....	.85
Vox Settings .....	.85
Internet Phone and Speakers .....	.86
Internet Phone Utilities .....	.86



Firewall Access .....	87
Other Internet Access .....	88
TIA .....	88
CU-SeeMe and Internet Phone .....	89
Internet Phone and OS/2 Warp .....	89
The Internet Phone Mailing List .....	90
The iPhone User Directory Web Service .....	90
<b>Chapter 7 WebPhone .....</b>	<b>93</b>
System Requirements for WebPhone .....	95
Installing WebPhone .....	96
Getting Started with WebPhone .....	96
Finding Someone to “WebPhone” With .....	100
It Just Keeps Getting Better .....	102
Call Conferencing .....	104
Offline Voice Mail .....	105
How to Retrieve Voice Mail .....	105
Call Transfer .....	106
Party-Specific Call Blocking .....	106
Party-Specific Ring-Through Do Not Disturb (DND) .....	107
On-Hold MIDI Music .....	108
WebPhone Password .....	108
WebPhone Databases .....	108
<b>Chapter 8 WebTalk .....</b>	<b>111</b>
Introduction to WebTalk .....	113
Getting Started with WebTalk .....	114
Installation Directions .....	115
Logging In .....	117
Using the WebTalk User Directory .....	118
Setting Up a Room .....	119
Identifying Speaking Partners .....	119