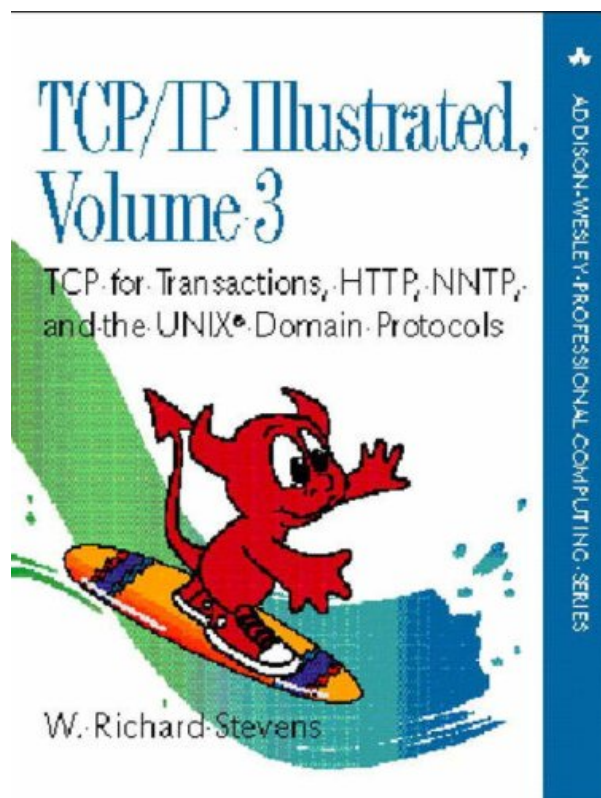
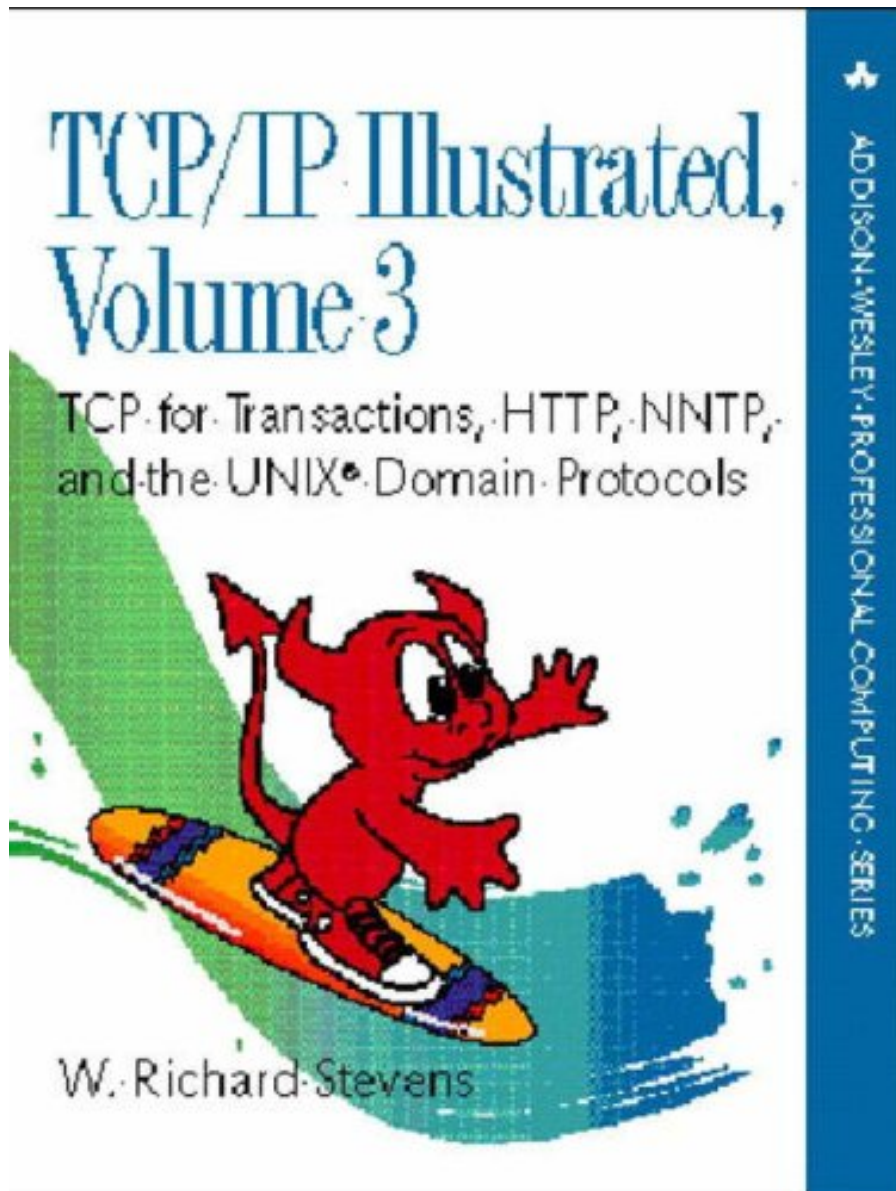


**TCP/IP ILLUSTRATED: V. 3: TCP FOR
TRANSACTIONS, HTTP, NNTP AND THE
UNIX DOMAIN PROTOCOLS (ADDISON-
WESLEY PROFESSIONAL COMPUTING
SERIES) B**



**DOWNLOAD EBOOK : TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS,
HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY
PROFESSIONAL COMPUTING SERIES) B PDF**

[!\[\]\(666e09182d4cd268646ea700ea60dcdf_img.jpg\) Free Download](#)



Click link bellow and free register to download ebook:

TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES) B

[DOWNLOAD FROM OUR ONLINE LIBRARY](#)

TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES) B PDF

Exactly what should you believe more? Time to obtain this [TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols \(Addison-Wesley Professional Computing Series\) B](#) It is simple then. You can just rest as well as remain in your location to obtain this publication TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B Why? It is on-line publication store that supply a lot of collections of the referred publications. So, simply with internet link, you can appreciate downloading this publication TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B and varieties of publications that are searched for currently. By visiting the web link page download that we have actually provided, the book TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B that you refer a lot can be found. Just conserve the asked for publication downloaded and install then you could appreciate the book to check out every time and also area you really want.

From the Back Cover

Praised by reviewers and practicing TCP/IP programmers alike, the TCP/IP Illustrated series examines the many facets of the TCP/IP protocol suite using a unique and highly-effective visual approach that describes the inner workings of TCP/IP with detail, insight, and clarity.

Volume 3 provides detailed coverage of four essential topics with which today's TCP/IP programmers and network administrators must be thoroughly familiar:

- T/TCP (TCP for Transactions), an extension to TCP that makes client-server transactions faster, more efficient, and more reliable;
- HTTP (Hypertext Transfer Protocol), the foundation for the rapidly expanding World Wide Web;
- NNTP (the Network News Transfer Protocol), the basis for the Usenet news system; and
- UNIX Domain Protocols, a set of protocols used heavily in UNIX implementations.

As in the previous two volumes, the book is filled with examples and implementation details within the 4.4BSD-Lite networking code.

The TCP/IP Illustrated series provides a complete picture of the protocol suite that drives the Internet, and gives programmers, system administrators, and serious users the information, understanding, and skills they need to remain at the forefront of networking technology.

0201634953B04062001

About the Author

We are deeply saddened to learn of the death of noted author W. Richard Stevens. His passing is obviously a tremendous loss for the technical community, but it is a personal one for us as well. Rich was both a gifted colleague and a valued friend who will be greatly missed. We extend our sympathies to his family.

Obituary from the Arizona Daily Star:

STEVENS, W. Richard, noted author of computer books died on September 1. He is best known for his "UNIX Network Programming" series (1990, 1998, 1999), "Advanced Programming in the UNIX Environment" (1992), and "TCP/IP Illustrated" series (1994, 1995, 1996). Richard was born in 1951 in Luanshya, Northern Rhodesia (now Zambia), where his father worked for the copper industry. The family moved to Salt Lake City, Hurley, New Mexico, Washington, DC and Phalaborwa, South Africa. Richard attended Fishburne Military School in Waynesboro, Virginia. He received a B.SC. in Aerospace Engineering from the University of Michigan in 1973, and an M.S. (1978) and Ph.D. (1982) in Systems Engineering from the University of Arizona. He moved to Tucson in 1975 and from then until 1982 he was employed at Kitt Peak National Observatory as a computer programmer. From 1982 until 1990 he was Vice President of Computing Services at Health Systems International in New Haven, CT, moving back to Tucson in 1990. Here he pursued his career as an author and consultant. He was also an avid pilot and a part-time flight instructor during the 1970's.

He is survived by his loving wife of 20 years, Sally Hodges Stevens; three wonderful children, Bill, Ellen and David; sister, Claire Stevens of Las Vegas, NV; brother, Bob and wife Linda Stevens of Dallas, TX; nieces, Laura, Sarah, Collette, Christy; and nephew, Brad. He is predeceased by his parents, Royale J. Stevens (1915-1984); and Helen Patterson Stevens (1916-1997). Helen lived in Tucson from 1991-1997, and Royale lived here in the early 1930's attending Tucson High School while his father was treated for TB at the Desert Sanatorium (now TMC). The family asks that in lieu of flowers, donations be made in Richard's name to Habitat for Humanity, 2950 E. 22nd Street, Tucson, AZ 85713. A memorial service for Richard will be held at St. Phillip's in the Hills Episcopal Church on Tuesday, September 7th at 12:00 noon. Following the service there will be a reception in the Murphy Gallery of the Church. Please wear colorful clothing to the service; Richard loved colors.

W. Richard Stevens was an acknowledged UNIX and networking expert and the highly-respected author of several books. He was also a sought-after instructor and consultant.

0201634953AB04062001

Excerpt. © Reprinted by permission. All rights reserved.

Introduction and Organization of the Book This book is a logical continuation of the TCP/IP Illustrated series: Stevens 1994, which we refer to as Volume 1, and Wright and Stevens 1995, which we refer to as Volume 2.

This book is divided into three parts, each covering a different topic:

TCP for transactions, commonly called T/TCP. This is an extension to TCP designed to make client-server transactions faster, more efficient, and reliable. This is done by omitting TCP's three-way handshake at the beginning of a connection and shortening the TIME_WAIT state at the end of a connection. We'll see that

T/TCP can match UDP's performance for a client-server transaction and that T/TCP provides reliability and adaptability, both major improvements over UDP.

A transaction is defined to be a client request to a server, followed by the server's reply. (The term transaction does not mean a database transaction, with locking, two-phase commit, and backout.)

TCP/IP applications, specifically HTTP (the Hypertext Transfer Protocol, the foundation of the World Wide Web) and NNTP (the Network News Transfer Protocol, the basis for the Usenet news system).

The Unix domain protocols. These protocols are provided by all Unix TCP/IP implementations and on many non-Unix implementations. They provide a form of interprocess communication (IPC) and use the same sockets interface used with TCP/IP. When the client and server are on the same host, the Unix domain protocols are often twice as fast as TCP/IP.

Part 1, the presentation of T/TCP, is in two pieces. Chapters 1-4 describe the protocol and provide numerous examples of how it works. This material is a major expansion of the brief presentation of T/TCP in Section 24.7 of Volume 1. The second piece, Chapters 5-12, describes the actual implementation of T/TCP within the 4.4BSD-Lite networking code (i.e., the code presented in Volume 2). Since the first T/TCP implementation was not released until September 1994, about one year after Volume 1 was published and right as Volume 2 was being completed, the detailed presentation of T/TCP, with examples and all the implementation details, had to wait for another volume in the series.

Part 2, the HTTP and NNTP applications, are a continuation of the TCP/IP applications presented in Chapters 25-30 of Volume 1. In the two years since Volume 1 was published, the popularity of HTTP has grown enormously, as the Internet has exploded, and the use of NNTP has been growing about 75% per year for more than 10 years. HTTP is also a wonderful candidate for T/TCP, given its typical use of TCP: short connections with small amounts of data transferred, where the total time is often dominated by the connection setup and teardown. The heavy use of HTTP (and therefore TCP) on a busy Web server by thousands of different and varied clients also provides a unique opportunity to examine the actual packets at the server (Chapter 14) and look at many features of TCP/IP that were presented in Volumes 1 and 2.

The Unix domain protocols in Part 3 were originally considered for Volume 2 but omitted when its size reached 1200 pages. While it may seem odd to cover protocols other than TCP/IP in a series titled TCP/IP Illustrated, the Unix domain protocols were implemented almost 15 years ago in 4.2BSD alongside the first implementation of BSD TCP/IP. They are used heavily today in any Berkeley-derived kernel, but their use is typically "under the covers," and most users are unaware of their presence. Besides being the foundation for Unix pipes on a Berkeley-derived kernel, another heavy user is the X Window System, when the client and server are on the same host (i.e., on typical workstations). Unix domain sockets are also used to pass descriptors between processes, a powerful technique for interprocess communication. Since the sockets API (application program interface) used with the Unix domain protocols is nearly identical to the sockets API used with TCP/IP, the Unix domain protocols provide an easy way to enhance the performance of local applications with minimal code changes.

Each of the three parts can be read by itself.

ReadersAs with the previous two volumes in the series, this volume is intended for anyone wishing to understand how the TCP/IP protocols operate: programmers writing network applications, system administrators responsible for maintaining computer systems and networks utilizing TCP/IP, and users who deal with TCP/IP applications on a daily basis.

Parts 1 and 2 assume a basic understanding of how the TCP/IP protocols work. Readers unfamiliar with

TCP/IP should consult the first volume in this series, Stevens 1994, for a thorough description of the TCP/IP protocol suite. The first half of Part 1 (Chapters 1-4, the concepts behind T/TCP along with examples) can be read independent of Volume 2, but the remainder of Part 1 (Chapters 5-12, the implementation of T/TCP) assumes familiarity with the 4.4BSD-Lite networking code, as provided with Volume 2. Many forward and backward references are provided throughout the text, to both topics within this text, and to relevant sections of Volumes 1 and 2 for readers interested in more details. A thorough index is provided, and a list of all the acronyms used throughout the text, along with the compound term for the acronym, appears on the inside front covers. The inside back covers contain an alphabetical cross-reference of all the structures, functions, and macros described in the book and the starting page number of the description. This cross-reference also refers to definitions in Volume 2, when that object is referenced from the code in this volume.

Source Code Copyright All the source code in this book that is taken from the 4.4BSD-Lite release contains the following copyright notice:

The routing table code in Chapter 6 contains the following copyright notice:

Acknowledgments First and foremost I thank my family, Sally, Bill, Ellen, and David, who have endured another book along with all my traveling during the past year. This time, however, it really is a "small" book.

I thank the technical reviewers who read the manuscript and provided important feedback on a tight timetable: Sami Boulos, Alan Cox, Tony DeSimone, Pete Haverlock, Chris Heigham, Mukesh Kacker, Brian Kernighan, Art Mellor, Jeff Mogul, Marianne Mueller, Andras Olah, Craig Partridge, Vern Paxson, Keith Sklower, Ian Lance Taylor, and Gary Wright. A special thanks to the consulting editor, Brian Kernighan, for his rapid, thorough, and helpful reviews throughout the course of the book, and for his continued encouragement and support.

Special thanks are also due Vern Paxson and Andras Olah for their incredibly detailed reviews of the entire manuscript, finding many errors and providing valuable technical suggestions. My thanks also to Vern Paxson for making available his software for analyzing Tcpdump traces, and to Andras Olah for his help with T/TCP over the past year. My thanks also to Bob Braden, the designer of T/TCP, who provided the reference source code implementation on which Part 1 of this book is based.

Others helped in significant ways. Gary Wright and Jim Hogue provided the system on which the data for Chapter 14 was collected. Doug Schmidt provided a copy of the public domain TTCP program that uses Unix domain sockets, for the timing measurements in Chapter 16. Craig Partridge provided a copy of the RDP source code to examine. Mike Karels answered lots of questions.

My thanks once again to the National Optical Astronomy Observatories (NOAO), Sidney Wolff, Richard Wolff, and Steve Grandi, for providing access to their networks and hosts.

Finally, my thanks to all the staff at Addison-Wesley, who have helped over the past years, especially my editor John Wait.

As usual, camera-ready copy of the book was produced by the author, a Troff die-hard, using the Groff package written by James Clark. I welcome electronic mail from any readers with comments, suggestions, or bug fixes.

W. Richard Stevens
rstevens@noao.edu

<http://www.noao.edu/~rstevens>
Tucson, Arizona
November 1995

0201634953P04062001

TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES) B PDF

[Download: TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS \(ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES\) B PDF](#)

TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B How can you transform your mind to be a lot more open? There many sources that can help you to improve your ideas. It can be from the various other experiences and story from some people. Reserve TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B is among the relied on sources to obtain. You can locate a lot of publications that we discuss here in this internet site. And currently, we show you among the best, the TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B

However, just what's your concern not too loved reading *TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B* It is a great task that will certainly always provide fantastic advantages. Why you become so unusual of it? Many points can be practical why individuals do not like to check out TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B It can be the uninteresting tasks, the book TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B compilations to check out, even careless to bring spaces almost everywhere. Today, for this TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B, you will start to love reading. Why? Do you know why? Read this page by finished.

Starting from visiting this website, you have actually attempted to start nurturing checking out a book TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B This is specialized site that sell hundreds compilations of books TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B from whole lots sources. So, you won't be tired any more to choose the book. Besides, if you additionally have no time to look guide TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B, just sit when you're in workplace and open the browser. You can discover this [TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols \(Addison-Wesley Professional Computing Series\) B](#) lodge this web site by hooking up to the web.

TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES) B PDF

Praised by reviewers and practicing TCP/IP programmers alike, the TCP/IP Illustrated series examines the many facets of the TCP/IP protocol suite using a unique and highly-effective visual approach that describes the inner workings of TCP/IP with detail, insight, and clarity. Volume 3 provides detailed coverage of four essential topics with which today's TCP/IP programmers and network administrators must be thoroughly familiar: *T/TCP (TCP for Transactions), an extension to TCP that makes client-server transactions faster, more efficient, and more reliable; *HTTP (Hypertext Transfer Protocol), the foundation for the rapidly expanding World Wide Web; *NNTP (the Network News Transfer Protocol), the basis for the Usenet news system; and *UNIX Domain Protocols, a set of protocols used heavily in UNIX implementations. As in the previous two volumes, the book is filled with examples and implementation details within the 4.4BSD-Lite networking code. The TCP/IP Illustrated series provides a complete picture of the protocol suite that drives the Internet, and gives programmers, system administrators, and serious users the information, understanding, and skills they need to remain at the forefront of networking technology.
0201634953B04062001

- Sales Rank: #439496 in Books
- Published on: 1996-01-29
- Original language: English
- Number of items: 1
- Dimensions: 9.30" h x 1.10" w x 7.50" l, 1.77 pounds
- Binding: Hardcover
- 328 pages

From the Back Cover

Praised by reviewers and practicing TCP/IP programmers alike, the TCP/IP Illustrated series examines the many facets of the TCP/IP protocol suite using a unique and highly-effective visual approach that describes the inner workings of TCP/IP with detail, insight, and clarity.

Volume 3 provides detailed coverage of four essential topics with which today's TCP/IP programmers and network administrators must be thoroughly familiar:

- T/TCP (TCP for Transactions), an extension to TCP that makes client-server transactions faster, more efficient, and more reliable;
- HTTP (Hypertext Transfer Protocol), the foundation for the rapidly expanding World Wide Web;
- NNTP (the Network News Transfer Protocol), the basis for the Usenet news system; and
- UNIX Domain Protocols, a set of protocols used heavily in UNIX implementations.

As in the previous two volumes, the book is filled with examples and implementation details within the

4.4BSD-Lite networking code.

The TCP/IP Illustrated series provides a complete picture of the protocol suite that drives the Internet, and gives programmers, system administrators, and serious users the information, understanding, and skills they need to remain at the forefront of networking technology.

0201634953B04062001

About the Author

We are deeply saddened to learn of the death of noted author W. Richard Stevens. His passing is obviously a tremendous loss for the technical community, but it is a personal one for us as well. Rich was both a gifted colleague and a valued friend who will be greatly missed. We extend our sympathies to his family.

Obituary from the Arizona Daily Star:

STEVENS, W. Richard, noted author of computer books died on September 1. He is best known for his "UNIX Network Programming" series (1990, 1998, 1999), "Advanced Programming in the UNIX Environment" (1992), and "TCP/IP Illustrated" series (1994, 1995, 1996). Richard was born in 1951 in Luanshya, Northern Rhodesia (now Zambia), where his father worked for the copper industry. The family moved to Salt Lake City, Hurley, New Mexico, Washington, DC and Phalaborwa, South Africa. Richard attended Fishburne Military School in Waynesboro, Virginia. He received a B.SC. in Aerospace Engineering from the University of Michigan in 1973, and an M.S. (1978) and Ph.D. (1982) in Systems Engineering from the University of Arizona. He moved to Tucson in 1975 and from then until 1982 he was employed at Kitt Peak National Observatory as a computer programmer. From 1982 until 1990 he was Vice President of Computing Services at Health Systems International in New Haven, CT, moving back to Tucson in 1990. Here he pursued his career as an author and consultant. He was also an avid pilot and a part-time flight instructor during the 1970's.

He is survived by his loving wife of 20 years, Sally Hodges Stevens; three wonderful children, Bill, Ellen and David; sister, Claire Stevens of Las Vegas, NV; brother, Bob and wife Linda Stevens of Dallas, TX; nieces, Laura, Sarah, Collette, Christy; and nephew, Brad. He is predeceased by his parents, Royale J. Stevens (1915-1984); and Helen Patterson Stevens (1916-1997). Helen lived in Tucson from 1991-1997, and Royale lived here in the early 1930's attending Tucson High School while his father was treated for TB at the Desert Sanatorium (now TMC). The family asks that in lieu of flowers, donations be made in Richard's name to Habitat for Humanity, 2950 E. 22nd Street, Tucson, AZ 85713. A memorial service for Richard will be held at St. Phillip's in the Hills Episcopal Church on Tuesday, September 7th at 12:00 noon. Following the service there will be a reception in the Murphy Gallery of the Church. Please wear colorful clothing to the service; Richard loved colors.

W. Richard Stevens was an acknowledged UNIX and networking expert and the highly-respected author of several books. He was also a sought-after instructor and consultant.

0201634953AB04062001

Excerpt. © Reprinted by permission. All rights reserved.

Introduction and Organization of the Book This book is a logical continuation of the TCP/IP Illustrated

series: Stevens 1994, which we refer to as Volume 1, and Wright and Stevens 1995, which we refer to as Volume 2.

This book is divided into three parts, each covering a different topic:

TCP for transactions, commonly called T/TCP. This is an extension to TCP designed to make client-server transactions faster, more efficient, and reliable. This is done by omitting TCP's three-way handshake at the beginning of a connection and shortening the TIME_WAIT state at the end of a connection. We'll see that T/TCP can match UDP's performance for a client-server transaction and that T/TCP provides reliability and adaptability, both major improvements over UDP.

A transaction is defined to be a client request to a server, followed by the server's reply. (The term transaction does not mean a database transaction, with locking, two-phase commit, and backout.)

TCP/IP applications, specifically HTTP (the Hypertext Transfer Protocol, the foundation of the World Wide Web) and NNTP (the Network News Transfer Protocol, the basis for the Usenet news system).

The Unix domain protocols. These protocols are provided by all Unix TCP/IP implementations and on many non-Unix implementations. They provide a form of interprocess communication (IPC) and use the same sockets interface used with TCP/IP. When the client and server are on the same host, the Unix domain protocols are often twice as fast as TCP/IP.

Part 1, the presentation of T/TCP, is in two pieces. Chapters 1-4 describe the protocol and provide numerous examples of how it works. This material is a major expansion of the brief presentation of T/TCP in Section 24.7 of Volume 1. The second piece, Chapters 5-12, describes the actual implementation of T/TCP within the 4.4BSD-Lite networking code (i.e., the code presented in Volume 2). Since the first T/TCP implementation was not released until September 1994, about one year after Volume 1 was published and right as Volume 2 was being completed, the detailed presentation of T/TCP, with examples and all the implementation details, had to wait for another volume in the series.

Part 2, the HTTP and NNTP applications, are a continuation of the TCP/IP applications presented in Chapters 25-30 of Volume 1. In the two years since Volume 1 was published, the popularity of HTTP has grown enormously, as the Internet has exploded, and the use of NNTP has been growing about 75% per year for more than 10 years. HTTP is also a wonderful candidate for T/TCP, given its typical use of TCP: short connections with small amounts of data transferred, where the total time is often dominated by the connection setup and teardown. The heavy use of HTTP (and therefore TCP) on a busy Web server by thousands of different and varied clients also provides a unique opportunity to examine the actual packets at the server (Chapter 14) and look at many features of TCP/IP that were presented in Volumes 1 and 2.

The Unix domain protocols in Part 3 were originally considered for Volume 2 but omitted when its size reached 1200 pages. While it may seem odd to cover protocols other than TCP/IP in a series titled TCP/IP Illustrated, the Unix domain protocols were implemented almost 15 years ago in 4.2BSD alongside the first implementation of BSD TCP/IP. They are used heavily today in any Berkeley-derived kernel, but their use is typically "under the covers," and most users are unaware of their presence. Besides being the foundation for Unix pipes on a Berkeley-derived kernel, another heavy user is the X Window System, when the client and server are on the same host (i.e., on typical workstations). Unix domain sockets are also used to pass descriptors between processes, a powerful technique for interprocess communication. Since the sockets API (application program interface) used with the Unix domain protocols is nearly identical to the sockets API used with TCP/IP, the Unix domain protocols provide an easy way to enhance the performance of local applications with minimal code changes.

Each of the three parts can be read by itself.

ReadersAs with the previous two volumes in the series, this volume is intended for anyone wishing to understand how the TCP/IP protocols operate: programmers writing network applications, system administrators responsible for maintaining computer systems and networks utilizing TCP/IP, and users who deal with TCP/IP applications on a daily basis.

Parts 1 and 2 assume a basic understanding of how the TCP/IP protocols work. Readers unfamiliar with TCP/IP should consult the first volume in this series, Stevens 1994, for a thorough description of the TCP/IP protocol suite. The first half of Part 1 (Chapters 1-4, the concepts behind T/TCP along with examples) can be read independent of Volume 2, but the remainder of Part 1 (Chapters 5-12, the implementation of T/TCP) assumes familiarity with the 4.4BSD-Lite networking code, as provided with Volume 2. Many forward and backward references are provided throughout the text, to both topics within this text, and to relevant sections of Volumes 1 and 2 for readers interested in more details. A thorough index is provided, and a list of all the acronyms used throughout the text, along with the compound term for the acronym, appears on the inside front covers. The inside back covers contain an alphabetical cross-reference of all the structures, functions, and macros described in the book and the starting page number of the description. This cross-reference also refers to definitions in Volume 2, when that object is referenced from the code in this volume.

Source Code CopyrightAll the source code in this book that is taken from the 4.4BSD-Lite release contains the following copyright notice:

The routing table code in Chapter 6 contains the following copyright notice:

AcknowledgmentsFirst and foremost I thank my family, Sally, Bill, Ellen, and David, who have endured another book along with all my traveling during the past year. This time, however, it really is a "small" book.

I thank the technical reviewers who read the manuscript and provided important feedback on a tight timetable: Sami Boulos, Alan Cox, Tony DeSimone, Pete Haverlock, Chris Heigham, Mukesh Kacker, Brian Kernighan, Art Mellor, Jeff Mogul, Marianne Mueller, Andras Olah, Craig Partridge, Vern Paxson, Keith Sklower, Ian Lance Taylor, and Gary Wright. A special thanks to the consulting editor, Brian Kernighan, for his rapid, thorough, and helpful reviews throughout the course of the book, and for his continued encouragement and support.

Special thanks are also due Vern Paxson and Andras Olah for their incredibly detailed reviews of the entire manuscript, finding many errors and providing valuable technical suggestions. My thanks also to Vern Paxson for making available his software for analyzing Tcpdump traces, and to Andras Olah for his help with T/TCP over the past year. My thanks also to Bob Braden, the designer of T/TCP, who provided the reference source code implementation on which Part 1 of this book is based.

Others helped in significant ways. Gary Wright and Jim Hogue provided the system on which the data for Chapter 14 was collected. Doug Schmidt provided a copy of the public domain TTCP program that uses Unix domain sockets, for the timing measurements in Chapter 16. Craig Partridge provided a copy of the RDP source code to examine. Mike Karels answered lots of questions.

My thanks once again to the National Optical Astronomy Observatories (NOAO), Sidney Wolff, Richard Wolff, and Steve Grandi, for providing access to their networks and hosts.

Finally, my thanks to all the staff at Addison-Wesley, who have helped over the past years, especially my

editor John Wait.

As usual, camera-ready copy of the book was produced by the author, a Troff die-hard, using the Groff package written by James Clark. I welcome electronic mail from any readers with comments, suggestions, or bug fixes.

W. Richard Stevens
rstevens@noao.edu
<http://www.noao.edu/~rstevens>
Tucson, Arizona
November 1995

0201634953P04062001

Most helpful customer reviews

21 of 21 people found the following review helpful.

Good but not as good as the other two

By Joshua Davies

After having read volumes I & II, I felt compelled to read volume III in spite of other customer reviews here. Having just finished this one, I'm inclined to agree with the other reviewers - interesting, but not as earth-shattering as the first two. The first half of the book covers, in volume-II style detail, an implementation of T/TCP for BSD; although this is interesting, it's not very practical, since T/TCP never caught on in the real world. The next part of the book covers HTTP & NNTP, but doesn't go into much detail; if you know what HTTP & NNTP are, you probably already know all the material covered in this book. Finally, the book ends by examining the BSD implementation of the Unix domain sockets. This last bit was the most relevant part of the book, but don't even think about trying to read this if you haven't completed volume II (and have it handy - the text refers back to specific pages and diagrams from Volume II). If you've read the other two books (Volume II in particular), you'll want to read this one to round out the experience, but don't expect to be blown away like you were with the others.

13 of 14 people found the following review helpful.

A good book, covering rarely explained protocols.

By Uri Raz

This book covers a need distinct from the first two volumes - the first two covered the core protocols' internals, while this one covers the application level protocols - a subject hardly covered by any other book. I've found this book very useful for understanding T/TCP, a subject my teacher did not explain well and was obscure for me.

The NNTP & HTTP cover was useful, especially as I was doing a lab on HTTP, but I must admit that as far as HTTP goes the RFCs were sufficient.

7 of 8 people found the following review helpful.

Writing software for the web?

By Wayne Witzel III

If you are planning on writing any software for the web, this is one of the books you need. This book covers T/TCP, HTTP, NNTP, and more including UD Protocols and some good info in the appendix.

W. Richard Stevens has never let me down with any of his books, and this one is no different. Its too bad hes not around to write books any more, alot of people will be missing out on great books from a great author. This is a must have!!

[See all 11 customer reviews...](#)

TCP/IP ILLUSTRATED: V. 3: TCP FOR TRANSACTIONS, HTTP, NNTP AND THE UNIX DOMAIN PROTOCOLS (ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES) B PDF

Obtain the link to download this **TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B** and begin downloading. You could really want the download soft documents of guide TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B by undertaking other tasks. Which's all done. Currently, your resort to check out a book is not constantly taking and also lugging guide TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B all over you go. You could save the soft documents in your device that will never ever be far as well as review it as you like. It resembles reading story tale from your gizmo then. Now, begin to enjoy reading TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B as well as get your brand-new life!

From the Back Cover

Praised by reviewers and practicing TCP/IP programmers alike, the TCP/IP Illustrated series examines the many facets of the TCP/IP protocol suite using a unique and highly-effective visual approach that describes the inner workings of TCP/IP with detail, insight, and clarity.

Volume 3 provides detailed coverage of four essential topics with which today's TCP/IP programmers and network administrators must be thoroughly familiar:

- T/TCP (TCP for Transactions), an extension to TCP that makes client-server transactions faster, more efficient, and more reliable;
- HTTP (Hypertext Transfer Protocol), the foundation for the rapidly expanding World Wide Web;
- NNTP (the Network News Transfer Protocol), the basis for the Usenet news system; and
- UNIX Domain Protocols, a set of protocols used heavily in UNIX implementations.

As in the previous two volumes, the book is filled with examples and implementation details within the 4.4BSD-Lite networking code.

The TCP/IP Illustrated series provides a complete picture of the protocol suite that drives the Internet, and gives programmers, system administrators, and serious users the information, understanding, and skills they need to remain at the forefront of networking technology.

0201634953B04062001

About the Author

We are deeply saddened to learn of the death of noted author W. Richard Stevens. His passing is obviously a tremendous loss for the technical community, but it is a personal one for us as well. Rich was both a gifted colleague and a valued friend who will be greatly missed. We extend our sympathies to his family.

Obituary from the Arizona Daily Star:

STEVENS, W. Richard, noted author of computer books died on September 1. He is best known for his "UNIX Network Programming" series (1990, 1998, 1999), "Advanced Programming in the UNIX Environment" (1992), and "TCP/IP Illustrated" series (1994, 1995, 1996). Richard was born in 1951 in Luanshya, Northern Rhodesia (now Zambia), where his father worked for the copper industry. The family moved to Salt Lake City, Hurley, New Mexico, Washington, DC and Phalaborwa, South Africa. Richard attended Fishburne Military School in Waynesboro, Virginia. He received a B.S.C. in Aerospace Engineering from the University of Michigan in 1973, and an M.S. (1978) and Ph.D. (1982) in Systems Engineering from the University of Arizona. He moved to Tucson in 1975 and from then until 1982 he was employed at Kitt Peak National Observatory as a computer programmer. From 1982 until 1990 he was Vice President of Computing Services at Health Systems International in New Haven, CT, moving back to Tucson in 1990. Here he pursued his career as an author and consultant. He was also an avid pilot and a part-time flight instructor during the 1970's.

He is survived by his loving wife of 20 years, Sally Hodges Stevens; three wonderful children, Bill, Ellen and David; sister, Claire Stevens of Las Vegas, NV; brother, Bob and wife Linda Stevens of Dallas, TX; nieces, Laura, Sarah, Collette, Christy; and nephew, Brad. He is predeceased by his parents, Royale J. Stevens (1915-1984); and Helen Patterson Stevens (1916-1997). Helen lived in Tucson from 1991-1997, and Royale lived here in the early 1930's attending Tucson High School while his father was treated for TB at the Desert Sanitorium (now TMC). The family asks that in lieu of flowers, donations be made in Richard's name to Habitat for Humanity, 2950 E. 22nd Street, Tucson, AZ 85713. A memorial service for Richard will be held at St. Phillip's in the Hills Episcopal Church on Tuesday, September 7th at 12:00 noon. Following the service there will be a reception in the Murphy Gallery of the Church. Please wear colorful clothing to the service; Richard loved colors.

W. Richard Stevens was an acknowledged UNIX and networking expert and the highly-respected author of several books. He was also a sought-after instructor and consultant.

0201634953AB04062001

Excerpt. © Reprinted by permission. All rights reserved.

Introduction and Organization of the Book This book is a logical continuation of the TCP/IP Illustrated series: Stevens 1994, which we refer to as Volume 1, and Wright and Stevens 1995, which we refer to as Volume 2.

This book is divided into three parts, each covering a different topic:

TCP for transactions, commonly called T/TCP. This is an extension to TCP designed to make client-server transactions faster, more efficient, and reliable. This is done by omitting TCP's three-way handshake at the beginning of a connection and shortening the TIME_WAIT state at the end of a connection. We'll see that T/TCP can match UDP's performance for a client-server transaction and that T/TCP provides reliability and adaptability, both major improvements over UDP.

A transaction is defined to be a client request to a server, followed by the server's reply. (The term

transaction does not mean a database transaction, with locking, two-phase commit, and backout.)

TCP/IP applications, specifically HTTP (the Hypertext Transfer Protocol, the foundation of the World Wide Web) and NNTP (the Network News Transfer Protocol, the basis for the Usenet news system).

The Unix domain protocols. These protocols are provided by all Unix TCP/IP implementations and on many non-Unix implementations. They provide a form of interprocess communication (IPC) and use the same sockets interface used with TCP/IP. When the client and server are on the same host, the Unix domain protocols are often twice as fast as TCP/IP.

Part 1, the presentation of T/TCP, is in two pieces. Chapters 1-4 describe the protocol and provide numerous examples of how it works. This material is a major expansion of the brief presentation of T/TCP in Section 24.7 of Volume 1. The second piece, Chapters 5-12, describes the actual implementation of T/TCP within the 4.4BSD-Lite networking code (i.e., the code presented in Volume 2). Since the first T/TCP implementation was not released until September 1994, about one year after Volume 1 was published and right as Volume 2 was being completed, the detailed presentation of T/TCP, with examples and all the implementation details, had to wait for another volume in the series.

Part 2, the HTTP and NNTP applications, are a continuation of the TCP/IP applications presented in Chapters 25-30 of Volume 1. In the two years since Volume 1 was published, the popularity of HTTP has grown enormously, as the Internet has exploded, and the use of NNTP has been growing about 75% per year for more than 10 years. HTTP is also a wonderful candidate for T/TCP, given its typical use of TCP: short connections with small amounts of data transferred, where the total time is often dominated by the connection setup and teardown. The heavy use of HTTP (and therefore TCP) on a busy Web server by thousands of different and varied clients also provides a unique opportunity to examine the actual packets at the server (Chapter 14) and look at many features of TCP/IP that were presented in Volumes 1 and 2.

The Unix domain protocols in Part 3 were originally considered for Volume 2 but omitted when its size reached 1200 pages. While it may seem odd to cover protocols other than TCP/IP in a series titled TCP/IP Illustrated, the Unix domain protocols were implemented almost 15 years ago in 4.2BSD alongside the first implementation of BSD TCP/IP. They are used heavily today in any Berkeley-derived kernel, but their use is typically "under the covers," and most users are unaware of their presence. Besides being the foundation for Unix pipes on a Berkeley-derived kernel, another heavy user is the X Window System, when the client and server are on the same host (i.e., on typical workstations). Unix domain sockets are also used to pass descriptors between processes, a powerful technique for interprocess communication. Since the sockets API (application program interface) used with the Unix domain protocols is nearly identical to the sockets API used with TCP/IP, the Unix domain protocols provide an easy way to enhance the performance of local applications with minimal code changes.

Each of the three parts can be read by itself.

ReadersAs with the previous two volumes in the series, this volume is intended for anyone wishing to understand how the TCP/IP protocols operate: programmers writing network applications, system administrators responsible for maintaining computer systems and networks utilizing TCP/IP, and users who deal with TCP/IP applications on a daily basis.

Parts 1 and 2 assume a basic understanding of how the TCP/IP protocols work. Readers unfamiliar with TCP/IP should consult the first volume in this series, Stevens 1994, for a thorough description of the TCP/IP protocol suite. The first half of Part 1 (Chapters 1-4, the concepts behind T/TCP along with examples) can be read independent of Volume 2, but the remainder of Part 1 (Chapters 5-12, the implementation of T/TCP) assumes familiarity with the 4.4BSD-Lite networking code, as provided with Volume 2. Many forward and

backward references are provided throughout the text, to both topics within this text, and to relevant sections of Volumes 1 and 2 for readers interested in more details. A thorough index is provided, and a list of all the acronyms used throughout the text, along with the compound term for the acronym, appears on the inside front covers. The inside back covers contain an alphabetical cross-reference of all the structures, functions, and macros described in the book and the starting page number of the description. This cross-reference also refers to definitions in Volume 2, when that object is referenced from the code in this volume.

Source Code CopyrightAll the source code in this book that is taken from the 4.4BSD-Lite release contains the following copyright notice:

The routing table code in Chapter 6 contains the following copyright notice:

AcknowledgmentsFirst and foremost I thank my family, Sally, Bill, Ellen, and David, who have endured another book along with all my traveling during the past year. This time, however, it really is a "small" book.

I thank the technical reviewers who read the manuscript and provided important feedback on a tight timetable: Sami Boulos, Alan Cox, Tony DeSimone, Pete Haverlock, Chris Heigham, Mukesh Kacker, Brian Kernighan, Art Mellor, Jeff Mogul, Marianne Mueller, Andras Olah, Craig Partridge, Vern Paxson, Keith Sklower, Ian Lance Taylor, and Gary Wright. A special thanks to the consulting editor, Brian Kernighan, for his rapid, thorough, and helpful reviews throughout the course of the book, and for his continued encouragement and support.

Special thanks are also due Vern Paxson and Andras Olah for their incredibly detailed reviews of the entire manuscript, finding many errors and providing valuable technical suggestions. My thanks also to Vern Paxson for making available his software for analyzing Tcpdump traces, and to Andras Olah for his help with T/TCP over the past year. My thanks also to Bob Braden, the designer of T/TCP, who provided the reference source code implementation on which Part 1 of this book is based.

Others helped in significant ways. Gary Wright and Jim Hogue provided the system on which the data for Chapter 14 was collected. Doug Schmidt provided a copy of the public domain TTCP program that uses Unix domain sockets, for the timing measurements in Chapter 16. Craig Partridge provided a copy of the RDP source code to examine. Mike Karels answered lots of questions.

My thanks once again to the National Optical Astronomy Observatories (NOAO), Sidney Wolff, Richard Wolff, and Steve Grandi, for providing access to their networks and hosts.

Finally, my thanks to all the staff at Addison-Wesley, who have helped over the past years, especially my editor John Wait.

As usual, camera-ready copy of the book was produced by the author, a Troff die-hard, using the Groff package written by James Clark. I welcome electronic mail from any readers with comments, suggestions, or bug fixes.

W. Richard Stevens
rstevens@noao.edu
<http://www.noao.edu/~rstevens>
Tucson, Arizona
November 1995

0201634953P04062001

Exactly what should you believe more? Time to obtain this TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B It is simple then. You can just rest as well as remain in your location to obtain this publication TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B Why? It is on-line publication store that supply a lot of collections of the referred publications. So, simply with internet link, you can appreciate downloading this publication TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B and varieties of publications that are searched for currently. By visiting the web link page download that we have actually provided, the book TCP/IP Illustrated: V. 3: TCP For Transactions, HTTP, NNTP And The Unix Domain Protocols (Addison-Wesley Professional Computing Series) B that you refer a lot can be found. Just conserve the asked for publication downloaded and install then you could appreciate the book to check out every time and also area you really want.