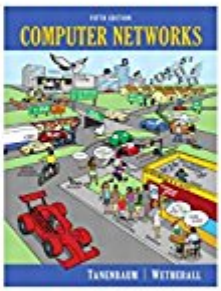
# Computer Networks (5th Edition)



## Synopsis

Computer Networks, 5/e is appropriate for Computer Networking or Introduction to Networking courses at both the undergraduate and graduate level in Computer Science, Electrical Engineering, CIS, MIS, and Business Departments. Tanenbaum takes a structured approach to explaining how networks work from the inside out. He starts with an explanation of the physical layer of networking, computer hardware and transmission systems; then works his way up to network applications. Tanenbaum's in-depth application coverage includes email; the domain name system; the World Wide Web (both client- and server-side); and multimedia (including voice over IP, Internet radio video on demand, video conferencing, and streaming media. Each chapter follows a consistent approach: Tanenbaum presents key principles, then illustrates them utilizing real-world example networks that run through the entire bookâ ”the Internet, and wireless networks, including Wireless LANs, broadband wireless and Bluetooth. The Fifth Edition includes a chapter devoted exclusively to network security. The textbook is supplemented by a Solutions Manual, as well as a Website containing PowerPoint slides, art in various forms, and other tools for instruction, including a protocol simulator whereby students can develop and test their own network protocols.

## Book Information

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## Customer Reviews

A contemporary, yet classic, introduction to today's key networking technologies Computer Networks, Fifth Edition, is the ideal introduction to the networking field. This bestseller reflects the latest networking technologies with a special emphasis on wireless networking, including 802.11,

802.16, Bluetoothâ„¢, and 3G cellular, paired with fixed-network coverage of ADSL, Internet over cable, gigabit Ethernet, MLPS, and peer-to-peer networks. Notably, this latest edition incorporates new coverage on 3G mobile phone networks, Fiber to the Home, RIFD, delay-tolerant networks, and 802.11 security, in addition to expanded material on Internet routing, multicasting, congestion control, quality of service, real-time transport, and content distribution. Authors Andrew Tanenbaum and Davis Wetherall describe the inner facets of the network, exploring its functionality from underlying hardware to applications, including:  Physical layer (e.g., copper, fiber, wireless, satellites, and Internet over cable)  Data link layer (e.g., protocol principles, protocol verification, HDLC, and PPP)  MAC Sublayer (e.g., gigabit Ethernet, 802.11, broadband wireless, and switching)  Network layer (e.g., routing algorithms, congestion control, QoS, IPv4, and IPv6)  Transport layer (e.g., socket programming, UDP, TCP, RTP, and network performance)  Application layer (e.g., e-mail, the Web, PHP, wireless Web, MP3, and streaming audio)  Network security (e.g., AES, RSA, quantum cryptography, IPsec, and Web security)  The book dissects and depicts the principles associated with each layer and then translates them through examples from the Internet and wireless networks. About the Authors  Andrew S. Tanenbaum is a Professor of Computer Science at Vrije Universiteteit, Amsterdam, the Netherlands. He is a fellow of IEEE and ACM and a member of the Netherlands Royal Academy of Arts and Sciences. He recently won a prestigious European Research Council Advanced Grant of 2.5 million to do research on highly reliable computer systems. Tanenbaum has also authored or coauthored the following titles: Structured Computer Organization, Fifth Edition; Operating Systems: Design and Implementation, Third Edition; and Distributed Systems: Principles and Paradigms, Second Edition, all published by Prentice Hall. David J. Wetherall is an Associate Professor of Computer Science and Engineering at the University of Washington in Seattle. He hails from Australia and has worked in the area of networking for the past two decades. His research is focused on Internet protocols, wireless networks, and security. Wetherall's work has been recognized with a Sloan Fellowship, the IEEE Bennett Prize, and the ACM SIGCOMM Test-of-Time Award.

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Second Edition, all published by Prentice Hall. David J. Wetherall is a Professor of Computer Science and Engineering at the University of Washington in Seattle. He hails from Australia and has worked in the area of networking for the past two decades. His research is focused on Internet protocols, wireless networks, and security. Wetherall's work has been recognized with a Sloan Fellowship, the IEEE Bennett Prize, and the ACM SIGCOMM Test-of-Time Award.

I have read this book in 1990 when it was in second edition. This book in its structure has unchanegd over past 22 years. The technologies have changed from X.25 networks to ATM networks to multi gigabit ethernet networks. some of the fundamental technologies like Ethernet, IP, TCP have largely remains unchanged. IP has its new incarnations in IPv6 which is covered in this edition. The book is fun to read with Tanenbaum’s sense of humor. He has many exercises which motivate and make people think deep into the problems. WARNING! It is a giant book. It is a reference book. Don’t think you can read, grasp things in one sitting! The fifth edition is very thorough and I checked with the author. A new edition is not coming out soon, so this book should last several years.

I work at a tech company as a sales rep but never had any formal computer networking training. I wanted a book that would walk me through each major aspect so that I could build upon it independently. I was getting frustrated trying to learn on my own because everything out there expects you to have fairly deep knowledge on the subject and that isn’t the case for me. After reading some of the reviews, I was a little worried that would be the case with this book as well. There are certainly parts that go into the weeds but overall I’ve found the book very easy to understand and really interesting!

Plenty of the reviews already point out specific features of the book. I wanted to illuminate the mentality necessary to appreciate this book. In my opinion, this book is not meant to *establish interest* in networks for the average student. It is meant to present a fantastic swathe of knowledge to those *already interested*. This is why there are reviews that say its boring and dry and then reviews that say its one of the best books they had at engineering school. The appreciative reviewer likely already had interest in networking, or similar subjects, whereas the unappreciative reviewer probably wasn’t too enthused by the subject matter!This is not a knock on the reviewers who rated it poorly, but rather an attempt to ward off those who don’t have preliminary interest from buying this book. If you already have the interest, this a fantastic reference source. For those looking for a first

course in networking, I would tend to recommend Kurose and Ross over this book for its more accessible wording and topic coverage. This is still a nice one to have in the collection though.

No complaints from the College guy !

Got this for college. Didn't read much of it, but it seemed to be written well, and in a way that was easy to understand.

Back in the days, being a computer science student, I had to read the 3rd version of this book, and I found it very helpful. Since then the book went through some significant changes (as did the computer networking industry in whole. This book makes a great job keeping current and make a robust (and sometime complicated) subject digestible.I do think the book is a little over-priced. Also, although it was said to come in "new" conditions, there are small bumps and wrinkles on the cover.

Great academic book, just as described!

This is the best book I have seen about the foundations of computer networks. It describes the concepts in a clear, often humorous, way (just look at the cover for an example).This is the book with the famous quote: "Never underestimate the bandwidth of a station wagon full of tapes hurtling down the highway." It is just as true today as it was in the early editions.

and Solutions: An innovative approach to building resilient, modern networks Computer Networks and Internets Computer Networks: A Systems Approach (The Morgan Kaufmann Series in Networking) Hacking: Wireless Hacking, How to Hack Wireless Networks, A Step-by-Step Guide for Beginners (How to Hack, Wireless Hacking, Penetration Testing, Social ... Security, Computer Hacking, Kali Linux) Computer Organization and Design MIPS Edition, Fifth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) Computer Organization and Design, Fourth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) Data and Computer Communications (10th Edition) (William Stallings Books on Computer and Data Communications) Comfort at Your Computer: Body Awareness Training for Pain-Free Computer Use