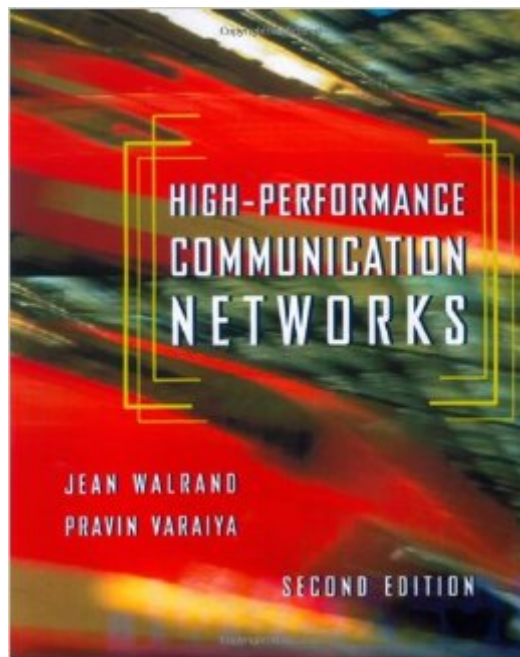# High-Performance Communication Networks, Second Edition (The Morgan Kaufmann Series In Networking)

Synopsis

By focusing on the convergence of the telephone, computer networking, cable TV, and wireless industries, this fully revised second edition explains current and emerging networking technologies. The authors proceed from fundamental principles to develop a comprehensive understanding of network architectures, protocols, control, performance, and economics. Communications engineers, computer scientists, and network administrators and managers will appreciate the book for its perspectives on the innovations that impact their work. Students will be enriched by the descriptive and thorough coverage of networking, giving them the knowledge to explore rewarding career opportunities. * Provides the most recent information on * wide and local area networks, including WDM and optical networks, Fast and Gigabit Ethernets* access networks, such as cable modems and DSL;* approaches for quality-differentiated services in IP and ATM networks.* Examines the Internet, including proposed advances for improved performance and quality of service.* Presents a comprehensive discussion of wireless networks for voice and data.* Explains the economic factors and technical tradeoffs that guide network development.* Derives (in self-contained sections) the most important mathematical results of network performance

Book Information

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Customer Reviews

I started to read this book as a text book for a graduate class in networking. I wanted to share my

experience so that others can avoid the pain that I felt. If your goal is to actually learn something useful about networks this book is not for you.Reasons to not like this book.... 1) The author does not explain in detail the important concepts. Lots of holes in the presentation of the material. 2) Almost every diagram in this book is confusing. The descriptions are not clear and the text does not help to explain them. 3) Homework problems have little to do with the text. You almost need to have another text to find the answers. Also, the problems were of little educational value. Plus, there are many ambigious questions that can have any number of meanings.There are many good book on networking and this one is not one of them. After being discoraged by the content of this book I started to read "Internetworking with TCP/IP" By Dr. Comer, for a clear understanding of the same concepts. This book is fantastic and I would recommend it to anyone for a professional reference or graduate networking text book.

I am currently using this book for a graduate course in broadband networks. Like many books and software these days, this book was thrown together in fire-drill fashion. It has surprisingly few typographical errors and the chapter introductions are good overviews in terms of what services various nets are well-suited for, and how things evolved. However, this book's pseudo-explanations are consistently *incomplete* and confusing. I have read Chapters 1 through 6 so far. (Chapters 1-4 are primarily undergrad level "network-ology.")Here are just two examples from the myriad:The Chap. 5 "explanation" of a SONET frame is woefully incomplete and confusing, and left me and my study partner with more questions than answers. One class meeting *after* this was introduced (when we had a chance to refer to this book for understanding), there was a *mob* around the prof. after lecture asking for clarification on the STS frame.Chap. 6/ pp. 219-220 attempt to explain how SONET LOH byte H3 is used for frequency justification. Neither I nor the TA were able to glean any meaning from these paragraphs after several re-readings (which seem to suggest that the H1 byte itself is for overflow data, which of course would make no sense --H3 is a pointer like H1 and H2), and in the accompanying figures H3 points to nothing!Here is a point that might not be the authors' fault, but: the AAL (ATM adaptation layer) header/trailer formats in the book are obsolete according to my professor, who supplied us with handouts of the current formats.The chapter-end problems (which we are doing for homework) are *WAY* beyond the ken of the text, and all of us are desperately referring to other texts by Stallings and others, and wearing out the poor prof. and TA with questions. It is *not possible* to do the problems with this book as a sole reference.If you need more than an overview, forget this book. A cursory flip-through of this book would have fooled me (from the diagrams) that it contains the detail I need, but the text leaves me crying for the clarity

more typical of William Stallings' books!I only came to this morning to buy *MORE* books (this time one on real analysis since I already have a John Freund book on statistics) to help me get the next homework done! I don't like posting a harsh criticism like this, but I was appalled to see a review praising this book's explanations.

I hate this book. It covers a lot of interesting information, but when you want to learn about the specifics, you're better off going online. The problems in the book cannot be found in the text, good online sources is the only answer. Besides not having the information to do the problems, it also have bad wording and many different interpretations of the question is possible. My only positive perspective of this book is that it forces you to go do research, be it online or in the library. But in terms of learning the material, this book is a no-no.This book is not worth the 80-100 dollars that it cost...you can use it to know that there are certain topics in the field, but if you want to learn about the topic, you'll have to look elsewhere. Thus this can only be useful as a doorstop, or a blunt weapon to hit yourself due to the high level of stress you will receive from it.

This book was used as the text of our graduate level course "telecommunication networks", but our instructor rarely used it in lectures, although he mentioned that most of the content would be covered in the exams. And we finally found that he cheated us, because this text was useless to prepare for the exams. :)I find that this book almost covers everything, such as ISO/OSI, TCP/IP, telephone networks, xDSL, ATM, SONET, wireless, etc. When you want to know something, you can always find the terms in the index, but when you access the content and you will find it is so hard to read. You spend a lot of time on it, but at last you still do not understand more.I recommend Tanenbaum's Computer Networks is a good book to understand many terms in communication networks, although there is some mistakes, such as CRC was interpreted as Cyclic Redundancy Code. If you want to know queuing theory, you can refer to Saadawi, et al.'s Fundamentals of Telecommunication Networks. If you want to know routing and switching, you can have a look at Perlman's Interconnections, Second Edition. These books are good to understand the basic theory of networking.When you buy a book, your book should explain the relative terms thoroughly but maybe not cover everything, and with least errors and typos. Otherwise, you will feel annoyed to have it on your bookshelf.

At the moment, I'm using this text in one my graduate classes. It's a very general text that does not go into much detail and uses far too many acronyms to follow what is being said. At times the text

contradicts itself making the whole reading experience confusing! Trying to answer the questions at the end of the text pushes you to search other resources.

The book is pretty bad ... high level junk. Also, Rajarshi Gupta, the only one with the 5 star rating, I belive, has some connections to Berkeley and perhaps the authors even ... hence the review must be taken in that context.

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