

By Carl Malamud



Paying by the Inch for OSI Documentation

I've got some advice for anyone interested in obtaining documentation for the Open Systems Interconnection: Bring your checkbook, it's not cheap!

Be prepared to pay \$1 or more a page, which adds up to several thousand dollars for reasonably complete documentation of these critical standards.

The high price of information on OSI is in sharp contrast to TCP/IP, where documents cost pennies per page. Cheap documentation, in turn, means that large numbers of students and professionals can buy and learn the standard.

I'm something of an unwilling expert in this field, having just shelled out \$1,554 for OSI paperwork—and that represents only my latest investment. And when a relatively paltry parcel arrived, I naturally thought that some of what I'd requested had been back-ordered. Foolish me. I got everything I asked for: a four-inch stack of paper that cost me \$388.50 an inch.

The big difference between TCP/IP and OSI is that the latter is copyrighted by the International Organization for Standardization (ISO), while TCP/IP documentation is in the public domain.

If you happen to be traveling in Europe, the ISO (Geneva) will sell you documentation directly. In the United States, the ISO has given exclusive distribution rights to the American National Standards Institute (ANSI). That means that ISO won't ship documents to the states.

ANSI stocks most ISO documents, but if you're not an institutional member, you've got to prepay the order. No credit cards, by the way.

If you need the documents in a hurry or want a draft standard (which ANSI doesn't stock), the services of a firm like Omnicom (Vienna, Va.) are in order.

But both Omnicom and ANSI charge the same amount for ISO standards, which is no coincidence: Omnicom is re-

quired in its licensing agreement with ANSI to charge the prices that ANSI sets. (Can ANSI do that? Isn't this price fixing?)

So what? A few thousand dollars is no big deal.

But what about professionals who want—and need—to educate themselves? What about universities and small startup companies? For groups like that, an expense of several thousand dollars is hard to justify. Even large corporations will buy fewer sets of documentation, which means that vital information may well be in short supply.

Again, TCP/IP stands in strong contrast. Right now, several computers on public networks (collectively known as the internet) are dedicated to acting as information servers. They provide libraries of standards documents that can be mailed electronically or downloaded for a nominal service charge.

The Computer and Science Network (CSNET), for example, maintains an information server that has been programmed to respond automatically to electronic mail requests. The cost to the user is simply the charge incurred for e-mail. Through the internet, the CSNET info server is available to users on systems like CompuServe, MCI Mail, and BITNET.

TCP/IP information always has been easy to get. For that reason, many universities and small companies contributed greatly to the overall shape of the standard.

The universities are really the key. Students spend hours learning the intricacies of TCP/IP. When they go to work for a corporation, they know about the

protocols and can begin using them to develop better software, computers, and applications.

But what about OSI? Essentially, the ISO's work will add a series of services to existing standards that will make it possible to link not just computers but programs themselves, in turn influencing the shape of networking and computing for years to come. ISO has produced vital, useful standards, yet by pricing OSI documentation out of the reach of so many potential users, the ISO and ANSI are demonstrating that they're remarkably short-sighted.

Douglas Comer, a professor of computer science at Purdue University and one of the leading TCP/IP researchers, says his students are required to examine TCP/IP documents in classes.

Comer goes on to say that because of their cost, OSI documents are acquired "only when absolutely needed." The result, he says, is that "faculty and students here are woefully ignorant of ISO specifications and protocols."

Jon Postel is official editor of the TCP standards documents. He's been a long-time participant in TCP/IP, and feels that the open nature of TCP/IP has contributed to its success. "Random

people," such as young programmers and students, have ready access to documents. And it's precisely those people who helped push TCP/IP into the arena where it mattered most—people using computers instead of people making computers.

So why are ISO documents so expensive? Why aren't they available electronically?

One of the main reasons is that both

If you live in the U.S., you have a simple choice when ISO standards are involved: Fly to Geneva or pay ANSI prices.

ANSI and ISO attempt to recover the costs of developing standards by charging for the documentation.

"You're not just paying for the paper," is a refrain I heard frequently. Standards development requires lots of trips, meetings, mailings, and, of course, administrative overhead.

But think about that for a minute. ANSI is a private, voluntary group. When computer standards are involved, the participants are primarily the computer companies that will produce products conforming to the standards. What both ANSI and ISO have done is shifted the cost of producing the standards away from their members to the general public.

ISO director of general services Jacques-Olivier Chabot refused to comment, saying this was a matter for ANSI. At ANSI, Jules Richardson, director of national sales, explained (again) that standards were more than paper and were a

vital national effort. However, he refused to comment on how much the standards-making process cost, how much of the process was financed by documentation sales, and how the profits were split between ISO and ANSI.

Basically, ANSI acted like any corporation: It refused to divulge its profits. I can see that with most organizations, but this is a standards body: It's like the government requiring people to know the law and then hiding the statute books!

ANSI's private status is hardly the norm worldwide, where standard-setting is chiefly a government activity. In the U.S., standards work is distributed widely among a variety of private "voluntary" organizations such as ANSI and among federal bodies such as the National Institute of Standards and Technology.

NIST currently is looking into the possibility of a Standards Council of the United States that would serve as a government-sponsored focal point for stan-

dards activities. NIST is being very careful to make its efforts unthreatening to groups like ANSI: Walter Leight, of NIST's Office of Standards Services, is quick to say that there is "no way that the government is going to run the private-sector standards business."

ANSI is not taking the possibility of a Standards Council lightly, which is no more than self-preservation given the likelihood that such a body might take over some or all of ANSI's tasks. True, a government-sponsored effort like the Standards Council could impose whatever fee structure it wanted, but chances are that documentation would be made available—like other government information—at cost or for free. ■

Carl Malamud is currently writing *Analyzing DECnet/OSI* to be published by Van Nostrand Reinhold in 1990. He's spent more than \$3,000 on OSI documentation to date.

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