

The ITU Adopts a New Meta-Standard: Open Access

by Carl Malamud

Major announcement

INTEROP 91 Fall featured a major announcement by Dr. Pekka Tarjanne, Secretary-General of the International Telecommunication Union. Using a live video teleconferencing link from Geneva, Dr. Tarjanne told INTEROP conference attendees that he has decided to allow the Internet community to post all ITU standards for distribution, at no charge, over the network.

The ITU standards are a crucial body of international standards, ranging from X.25 to G3/G4 fax to Signalling System 7 to X.400 messaging and the V series modem definitions. The CCITT standards set, known as the *Blue Book*, is over 19,000 pages long.

File server

The standards are initially available on a server donated by Sun Microsystems and maintained by the University of Colorado. Many other sites including UUNET will house copies of the standards archive.

To obtain standards from the server, users can initiate an anonymous FTP session to `digital.resource.org` (the preferred address) or `bruno.cs.colorado.edu` (the alias). Electronic mail sent to `infoserve@digital.resource.org` with the word "help" in the message body will return instructions on how to use a sophisticated mail-based archive server. Comments on any aspects of this program may be sent to `standards@digital.resource.org`.

Conversion

The ITU maintained the Blue Book on a Siemens mainframe using a 1970s style proprietary text formatting system (complete with their own character set named *Zentec*). A conversion program was written in *perl* which is able, with some notable exceptions, to convert the data into more rational formats.

The conversion program, in its initial implementation, converts the Blue Book into *troff*. For convenience, ASCII (i.e., *nroff*) and *PostScript* (i.e., *psroffed*) versions of the standards are posted along with their *troff* source.

Limitations

Two notable problems will be apparent in the converted documents. First, some tables and formulas were not able to be converted due to somewhat incomplete documentation on the original format (and the limited time and skills of the conversion programmer).

The second major limitation is the lack of integrated graphics. The ITU maintained graphics in Autocad, but manually added all text with typewriters, glue, and similar anachronisms. As an initial workaround, close to one thousand figures were manually scanned and are posted in TIFF and EPS formats. It is hoped, in the future, that we can provide a more elegant solution.

In addition to the Blue Book, there are quite a few more recent standards stored in other formats. These formats include Microsoft Word for Windows (the new ITU publishing platform), Rich Text Format (a Microsoft revisable form standard), ASCII, Word Perfect, and a few Samna files (the ITU precursor to Word).

Although there are certainly deficiencies in the free versions of the ITU standards, it is hoped that the Internet community will look beyond the individual bytes to the symbolic nature of this important announcement.

ITU Adopts a New Meta-Standard *(continued)*

Cost The ITU and ISO have, until now, only made their standards available by paper at great cost. The ITU derived annual revenues of SFr 8 million (roughly US\$ 5 million) from document sales. ISO also makes a considerable amount from document sales although they refuse to divulge specific revenue or cost figures, claiming the information is "proprietary."

High cost has meant that the most important communities—individuals who will implement the standards—have not had ready access to these vital documents.

Copyright Many considered one of the most surprising aspects of the INTEROP session to be a speech, made via the video link from Geneva, by Anthony Rutkowski, one of the senior lawyers at the ITU. Rutkowski presented a detailed analysis of the legal basis for asserting copyright on standards documents. He concluded that it was highly doubtful if international organizations (such as ISO or the ITU) would be able to successfully assert copyright protection in a court of law over the content of standards. (The video link was provided courtesy of US Sprint and Compression Labs Incorporated).

A first step The announcement by the ITU is a radical change in policy and represents the new leadership of Dr. Pekka Tarjanne. Dr. Vinton Cerf, the chairman of the IAB, underscored the significance of these new policies when he informed the INTEROP audience that he had received calls from the White House and the FCC wanting to know more details.

The ITU announcement is an important step, but it is only the first step. ISO, ANSI, the IEEE, Bellcore, and all other standards-making and standards-coordination bodies must firmly endorse the principle that the results of the standards process should be easily accessible at low cost or no cost.

In addition, bodies like ISO and ANSI should investigate their processes to see if there are means that can, while preserving the vital principle of due process, enhance the speed and relevance of standards making. An important first step would be to post all working documents on the Internet.

Posting documents on the Internet is technically feasible. In less than one month, a very small group of volunteers were able to convert most of the ITU standards set (not to mention scanning in images, setting up the hardware and installing support software). There are no technical reasons to not post standards—all objections are based on a political desire to retain control or a financial desire to enhance revenue.

Objection The most common objection by groups like ANSI to posting standards is that document sales "fund the process." While ANSI and ISO refuse to divulge their cost and revenue structure, it is certainly true that under the current procedures the document sales are important to both groups.

However, selling standards at very high prices undermines the very purpose for which groups like ISO and ANSI were formed. It is as if the American Cancer Society were to sell cigarettes as a way of funding their work. ISO and ANSI were formed to promote the widespread acceptance of standards: their current policies severely undermine those goals.

While the revenues from document sales are important, it should be noted that these sums are a mere pittance when compared to the tremendous donation in time and money by the voluntary participants in the standards process. Making standards available at very high prices undermines the tremendous donation by vendors and users to making standards.

Conclusion

Funding any non-profit activity is always difficult. If ANSI and ISO open up, the talented people who help make the standards can come up with creative solutions to financing that will maintain wide distribution of standards and not force ANSI to hold periodic bake sales. First, however, standards bodies must adopt the meta-standard of *availability*.

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