

지난호('90.10) ITU사무총장 Pekka Tarjanne씨의 인터뷰 기사를 게재한 것에 이어 CCITT 및 CCIR 의장과의 인터뷰 기사를 연속게재한다. 전기통신표준화 관련 종사자들에게 국제동향 인식의 참고자료가 되리라 사료된다.
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Towards a rejuvenated CCITT

In the following interview, Dr Theodor Irmer, Director of CCITT, gives an overview how the telecommunications committee of the International Telecommunications Union functions and how recent and forthcoming events affect the future of CCITT.

Theodor Irmer: 90 per cent of CCITT activities are aimed at standardisation. The standardisation work is carried out within the Study Groups. A Study Group consists of delegates from administrations and from what we call recognized private operating agencies, such as British Telecom, Mercury, Sprint or MCI. The number of these agencies is increasing, because of world-wide liberalisation of the telecommunications. We have also delegates coming from scientific organisations, and industrial organisations. We have, at the moment, 180 manufacturing companies as members within CCITT.

A Study Group deals with a certain area of work, such as switching, signalling, maintenance or services. Normally, the actual work being done is carried out within the Working Parties. The reason for this is that Study Groups have tended to grow in size. Certain Study Groups, when they are in full session, can number up to 500-600 persons, in fact we have had meetings with 800 delegates. That's why we are decentralising our work more and more. We have now the Working Parties, which are smaller groups within a Study Group. They deal with detailed matters, and again, for even more detailed matters we are working in smaller, so called "Repertoire Groups". These Repertoire Groups bring their reports to the Working Parties. They are subsequently discussed, modified and so on in the Working Party. The Working Parties then report to a plenary meeting of a Study/Group.

Although our main field is standardisation, we have some non-standard activities. Together with the radio committee, CCIR, we have a plan committee, for each of the five regions of CCITT. The purpose of a plan committee is to develop regionally plans for the harmonious evolution of the network and services. Above these regional plan committees is the World Plan Committee which is the top level of this hierarchy. Finally, we have the GAS (Group Autonome Spécialisée). The mandate of these groups is to write manuals, handbooks and, increasingly, to carry out case studies to assist development countries in implementing modern technologies. This can be regarded as complementary work to the Recommendations. More and more these GAS groups are also doing case studies. It means that they give practical examples how to move e.g. from an analog telephone network to a digital one.

The Study Groups are developing

By GÖRAN FREDRIKSSON

CCITT

so called "Recommendations." The reason why we use this term is simply a legal one, the term Recommendation makes it clear that these are non-binding standards. Internationally we do not have any power to force anybody to adopt these Recommendations. On the other hand, fortunately enough, most of the countries are adopting these Recommendations.

Dramatic growth

The collection of all our standards comes up to some 18-19,000 pages. That, of course, reflects the dramatic growth in these technologies. To give a few examples, major standardisation projects are the Signalling System No 7, (Common Channel Signalling, CCS), data networks, packet switched data network for instance, ISDN, a very big project, where we have the so called 64K ISDN and we are now working on the broadband ISDN standards, the field of optical fibre transmission, cables and systems, and also the increasing field of services. All this necessitates standardisation, if the Recommendations are to be used world-wide and this is, of course, increasing our work load dramatically.

As a consequence of this, starting in Melbourne 1988 at the Plenary Assembly, we began to revise our working methods, structures and so on. Most of our working rules and working methods date back to the time when CCITT was a small organisation. When I started here in CCITT, in 1968, as a delegate, a Study Group of 50 people was then considered to be a large Study Group. Now this number do not even constitute an expert group. So it was clear, if we only let matters continue as before, we would end in chaos. We would simply not be able to work efficiently and would also have problems visavi the new regional organisations that have arisen. In Melbourne, at our last plenary Assembly in 1988, many proposals for change due to these circumstances were made, and many of these were proposed by myself. And, fortunately, they were all accepted. That was the first step to a total reorganisation and adaption of CCITT's structure and working methods to the new environment. More steps must come and maybe even more traumatic ones.

Plenary assembly

Perhaps a few words should be said about what was achieved in Melbourne: We completely revised our somewhat conservative documentat-

tion system, the contributions, the reports and so on, with the view to making it more efficient. We decided to decentralize the work and started to restructure the Study Groups. Our Study Groups to a large extent reflect even now the conventional technologies and services. In the good old days, there were clear demarcation lines between switching and transmission and between telephony and data and voice and non-voice services. Now all these standardisation projects are not vertical, are not only covering one particular technology or service, but are in fact covering all of them, such as ISDN.

And another example: switching is no longer limited to telephone switching, it includes other services as well. That is why we in Melbourne took a first step towards a more functional grouping of the Study Groups. This process is not completed, here we have to go further but quite considerable progress has been made.

Functional grouping

As an example of what I mean by functional grouping: Historically, we had these services scattered at least over 5 or 6 Study Groups where we had the non-voice services, the voice services, the data services and the ISDN services. And that of course is nonsense because as we move into integrated networks, it's all becomes digital. That's why we created a Study Group which deals with all services, regardless of whether they are voice, non-voice, telex or video telephony.

Total revision

But, in my mind, the most important step that was taken in Melbourne was a total revision of our production and approval of our standard Recommendations. Historically, we had to attend a plenary assembly every four years and ask the assembly to approve the standard Recommendations. This, of course, is no longer possible for various reasons. First of all—it causes a tremendous delay—maximum four years but normally around two-three years. And as the technology is developing so fast, there is a strong need for fast standardisation work; it is no longer possible to wait so long, just to get the approval of the plenary assembly. Secondly, the number of Recommendations that we have produced has increased dramatically and the plenary assembly can no longer really look into this as thoroughly as would

be necessary. In fact, it was developing into just a rubber stamping procedure.

Resolution II

This situation has put an extreme strain on the ITU, to produce all this material in a rather short time. All this has led to new methods which are now underway and in brief it is the so called "Resolution II." This resolution says that, whenever a study group, at any time, agrees unanimously that a particular draft recommendation they have developed is ready to become a Recommendation, they can invoke a procedure, which is specified in this resolution. First of all, the administrations of the study group agree unanimously, that the work is finished and can be turned into a Recommendation. Then this text is communicated to the Membership, to the administrations and within three months, if 70 per cent of the replies received are affirmative, then this draft Recommendation will finally be adopted. After that, the Recommendations are immediately printed and are then available to anybody.

That means that we are now departing from our Book Series. The Book that is now under production, the "Blue Book", which gives the results of the plenary assembly of Melbourne, has about 18-19,000 pages. Despite all the improvements in text processing and so on, it takes one and a half years to produce this book. At the same time, the industry, the network providers and others need the book very urgently. With this new method it will be possible to publish Recommendations, immediately after they have been approved, each recommendation in a separate cover. After a while we have a collection of the standards that are really needed, and that, of course, has a number of advantages. No longer do we need to wait one-and-half year until the book is ready. It is immediately available, after the resolution to process is terminated. The costs, which have been increasing during the 1980s, will go down because of simplified production. Most important is that the members can use a set of Recommendations immediately after they have been approved and do not have to wait years, until they receive it. To my mind, that was the most remarkable step that we took in Melbourne: to depart from this four-year cycle.

But we should not forget that it is not only technology that is racing ahead, we have also a factor of competition; the manufacturers are com-

peting, network providers are competing and, because of this, there is much more push behind standardisation today. Because standards—and we should be very clear about this—are strategic tools and they are recognized as such, Standardisation is today a commercial business.

Standards as strategic tools

There is no difference in my mind between designing a piece of hardware/software or developing a standard. You need time, you need manpower, you need money and you would like to have the product ready at a given time which should, of course, be at a time when you can market it, not in five years from now, when it may have lost its usefulness entirely. We decided, in Melbourne,



Dr Theodor Irmer, Director of the CCITT.

to set up a group, which is looking into further reforms of CCITT. This Group is called the Group on Resolution 18, and started in February. Personally, I expect that that group will make more changes than we have already made in Melbourne. What I would like to see happen is a complete restructuring of CCITT, with the Study Groups and the working methods adapted to the environment of today. Here the environment is only the development of technology, the increasing competition, the globalisation of markets and so on, it is also important that, in our work in this group, we take account of the regional standardisation, in which we must

come to a fruitful cooperation. What I would like to see happening in that group is a more business-like approach to standardisation, turning the work of CCITT in a more project—or task—oriented organisation. To take but one example, we need standards for the intelligent network. Then, a dead-line must be set, when the work is to be completed. The work is then divided between various Study Groups. An important new element would be what could possibly be called a project-management group, with the task of making sure that, despite the fact that this work is going on in many different Study Groups, it is progressing in a coordinated and harmonious way. That would be a very favourable development. There are also other areas which could be modernised such as establishing electronic data exchange within the Membership. So far, we have received all our contributions on paper and we are now studying the possibility of using the X 400 Message Handling, a field trial is already on the way, so that the members can transmit texts to us electronically. We will then immediately move that text for printing. A modern documentation system, not only internally within the offices for CCITT, but also in communication with the membership, is also necessary. That is an area where we must progress rapidly, because, with the many contributions and reports that we produce, the amount of paper is almost unbelievable. In the last study period, we printed in Geneva, for CCITT alone, about 150 million papers. And if you pile this 150 million pages one on top of the other, that is a paper tower as high as Mount Everest, more than 8 kilometers.

Removing old structures

In my mind, CCITT has recognised the challenge and we must move away from working methods and traditional habits, which have been totally in line with the environment, as it existed say ten years ago. We recognize the challenge and have taken the results of Melbourne and the international reorganisation here, looking towards this new group, and are confident that we are able to shape CCITT into a modern, efficient standardisation organisation. In my mind, we are in the same situation today as network operators and manufacturers. One of the consequences of this modern technology is that it has removed old structures, old barriers. 10–15 years ago, CCITT had almost a monopoly. There were

no other standardisations organisations. Now we have the regional organisations, we have ISO, (the International Standardisations Organisation), working within the field of information technology, so it is becoming increasingly more difficult: to draw the line between telecommunications and information technology. We must recognize that CCITT exists in a competitive environment. Like network providers, the monopolies are acting like companies or manufacturers, competing on a worldwide basis. This means that we have to have methods, which are adapted to this competitive businesslike environment. This is the challenge I see. And I am confident, that the really remarkable steps that we took in Melbourne, will enable us to go even further now. We have to prove that we will deliver the service the membership is expecting. If so, there will be no problems, we will maintain what was called in Melbourne the pre-eminence of CCITT, but as in business, you have to prove it every day. You have to prove by results that you are a good standards organisation (the best) and that means that the process of adaption will continue and must continue. The environment is completely changing: all our membership organisations change completely every year or so. No PTT in Europe looks today like it did five years ago. Take the major manufacturers—there are acquisitions, mergers, changes and so on. That has to be reflected in our organisation. We are a part of this environment and must respond appropriately to these changes, that also influence our work considerably.

Relationship between CCITT and CCIR

One of the questions that was discussed in Nice at ITU's plenipotentiary conference last summer was: do we need two committees (CCITT and CCIR) or do we need only one. Is it better to have just a standardisation organisation which only deals with standardisation, for instance, without the plan committees?

The difference between CCITT and CCIR is not only that they are working within the field of radio and we are working with more wire-bound services. CCIR is also doing much regulatory work, spectrum management and so on. And CCIR contributes to the Radio conferences in preparing, making reports, tests and so on. These are activities that we do not have. They, on the other hand, have some standardisation



In the last Study Group Period, more than 150 millions of papers were printed, in Geneva only . . .

work, but the difference is that almost all our business is standardisation, when they have also quite a large amount of other business. That is why it is not possible only to merge the two committees, you must look at what they are doing. What you could do, perhaps, is to take the standardisation activities of CCIR and CCITT and put them together. But then comes the question: what do you do with the other activities? So I am against the simple idea of merging the two committees; this is like merging two different pair of shoes.

TELE: Was Melbourne more important for CCITT than Nice?

TI: Yes, the purpose of the plenipotentiary conference is at the highest level of ITU. And in Nice, as with any plenipotentiary conference, the task was to revise the international telecommunication convention which is our basic "law". In Nice, it was even so that the ITU convention was split into a constitution and a convention. But, fortunately, the old convention and the new one are flexible enough to allow the two CCIs to define their working methods, to a large extent as

they like. The conventions just specify that there should be a plenary assembly, but they do not, for instance, specify the approval of Recommendations. They say only that a Recommendation can be approved by a plenary assembly or by a method specified by a plenary assembly, in other words, you can work this out as you like. So the convention is the umbrella under which we have to operate. But under this umbrella there is lot of freedom. The convention is, in other words, flexible enough and it has to be, because the two CCIs operate in different ways.

Spirit of Melbourne

But I should like say a few more words about the plenary assembly. In Melbourne, the expression "The Spirit of Melbourne" was created. The inventor of this was our new Secretary General who, this time, was the chairman of that committee at the plenary assembly, that had to do all the restructuring, reforming and changing that was required. And when he started to introduce his report, he used the words "Let's work in the spirit of Melbourne". So he is

the inventor of that expression and is actually pushing these reforms very much. I am confident, considering the way he pushed through all these significant changes in Melbourne, in our CCITT plenary, that he will do the same thing now, in ITU. The expression "Spirit of Melbourne" is still used, when people do talk about this meeting. That expression stood for a will for reform, a kind of new start, in a new area.

I have noticed—and that encourages me—that because our members are undergoing these changes, the PTT's, the network providers, the manufacturers, are also shaped by these changes. They understand (much better than some years ago) that ITU cannot stand apart. There is much more readiness now, to accept also here far-reaching changes.

I am quite grateful that we have regional standardisation bodies because they force us to move forward and reorganize ourselves. It is the element of competition, if you like, in a positive way. On the other hand, all the regional organisations accept that a worldwide standard is, in any case, to be preferred to a regional, but, and the "but" has to be underlined, only if that worldwide standard comes at a time when it is needed. If not, then they will create their own standards, that's quite clear. This challenge is well understood now and we will work to meet it. ■