ITU-T Telecommunication Standardization Sector Study Group 15 Experts Group for Video Coding and Systems in ATM and Other Network Environments Document AVC-584

September 17, 1993

Temporary Document 75 (P)

Source:

Chairman of Working Party 1/15

Title:

Guidance to the Rapporteur for the study of video coding and systems in ATM

and other network environments

After having reviewed the current activities regarding the ATM video coding and surrounding network aspects under Question 2/15, Working Party 1/15 gives the following guidance to the Rapporteur for his work with collaborators, according to the progress made and the new Resolution No. 1 and Recommendation A.23 adopted at the WTSC-93.

## 1. Work area as part of Question 2/15

Video Coding and Systems in ATM and other network\* environments

\*) including LANs

## 2. Rapporteur

Sakae OKUBO (NTT, Japan)

#### 3. Work items

- 1) to investigate potential applications for ATM video coding and systems (conversational, distributive, retrieval of stored information, etc.) and network-related constraints on potential system performance, and to develop a set of requirements and constraints to guide the work;
- 2) to study the relationships between video coding algorithm and network parameters such as average and peak rates, burstiness, and peak duration to achieve good picture quality and traffic characteristics;
- 3) to study feasibility of a unified video coding standard for various applications in all service classes using the ATM and other networks for which different hardware versions (codecs) can be realized;
- 4) to study multimedia multiplex and synchronization method(s) appropriate in ATM and other network environments;
- 5) to integrate video coding, multimedia multiplex and synchronization and other elements into a total system,
- 6) to study what modifications are necessary to make the present AV Recommendations applicable in the ATM and other network environments;
- 7) to study compatibility of the new algorithms and systems with audiovisual systems covered by Recommendation H.200;
- 8) to correspond directly with the experts of other ITU Groups, and ISO/IEC on video coding and systems according to the rules and guidance specified in Resolution No. 1 of WTSC-93 and Recommendation A.23;

9) to draft the following Recommendations for video coding and systems in the ATM and other network environments according to the work program of WP1/15;

H.26X	Video coding for ATM environments
H.22X	Multimedia multiplex and synchronization for ATM environments
H.32X	Broadband audiovisual communication (or visual telephone?) systems and terminal equipment
H.32Y	Adaptation of H.320 terminals to B-ISDN
H.32Z	Adaptation of H.320 terminals to LANs

## 4. Work methods

- 1) In order to achieve good results, the Rapporteur collects a list of active collaborators, i.e. experts wishing to contribute to the work. An updated list of those collaborators will be given to the TSB at each Working Party meeting.
- 2) The Rapporteur will circulate appropriate available documentation to the experts.
- 3) Work progress should be made through correspondence as much as possible.
- 4) The schedule of the expert meetings between the Working Party meetings will be approved by Working Party 1/15. Invitations to any meetings of the experts will be made by the Rapporteur in accordance with the rules of Resolution No. 1 and Recommendation A.23 (Helsinki 1993).
- 5) The Rapporteur should ensure coordination with the work performed by other Study Groups and other appropriate standardization bodies. Study Group 15 will transmit an official request for cooperation, when required, to other Study Groups and standardization bodies. Mode of collaboration with ISO/IEC JTC1/SC29 should be by means of "Collaborative Interchange" as defined in Recommendation A.23.
- 6) The Rapporteur will provide progress reports at the meetings of Study Group 15 and/or Working Party 1/15.

**END** 

#### **Attachments**

Attachment 1	§4 of Resolution No. 1 of WTSC-93 (Helsinki)	pp.3-6
Attachment 2	Resolution of No. 7 of WTSC-93 (Helsinki)	pp.7-8
Attachment 3	ITU-T Recommendations A.20,21,22,23	pp.9-13

(Attachment 1)

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3.6 The role of a Joint Coordination Group does not confer any authority upon its members not already provided by the Study Groups involved. A Joint Coordination Group may in exceptional circumstances recommend to the TSAG the reallocation of relevant Questions for involved Study Groups. The decision to make such a recommendation shall be approved by consensus at a Joint Coordination Group meeting to which the relevant Study Group Chairmen must be invited.

## 4 The Roles of Rapporteurs

- 4.1 The Chairmen of Study Groups and Working Parties (including Joint Working Parties) are encouraged to make most effective use of the limited resources available by delegating responsibility to Rapporteurs for the detailed study of individual Questions or small groups of related Questions, parts of Questions, terminology, or amendment of existing Recommendations. Review and approval of the results resides with the Study Group or Working Party.
- 4.2 Liaison between ITU-TS Study Groups or with other organizations can be facilitated by the Rapporteurs or by the appointment of Liaison Rapporteurs;
- 4.3 The following guidelines should be used as a basis within each Study Group or Working Party to define the roles of Rapporteurs, Associate Rapporteurs and Liaison Rapporteurs; however, they may be adjusted following careful deliberation of the need for change and with the approval of the relevant Study Group or Working Party.
- 4.3.1 Specific persons should be appointed as Rapporteurs to be responsible for progressing the study of those Questions, or specific study topics, that are felt to be likely to benefit from such appointments. The same person may be appointed as the Rapporteur for more than one Question, or topic, particularly if the Questions, parts of Questions, terminology, or amendment of existing Recommendations concerned are closely related.
- 4.3.2 Rapporteurs may be appointed (and their appointments may be terminated) at any time with the agreement of the competent Working Party, or of the Study Group, where the Question(s) are not allocated to a Working Party. The term of the appointment relates to the work needing to be done rather than to the interval between WTSCs.
- 4.3.3 Where the work requires it, a Rapporteur may propose the appointment of one or more Associate Rapporteurs or Liaison Rapporteurs, whose appointments should then be endorsed by the relevant Working Party (or Study Group). Again these appointments may be made or terminated at any time in accordance with the work requirements. An Associate Rapporteur assists the Rapporteur, either in general or to deal with a particular point or area of study in a Question. A Liaison Rapporteur assists the Rapporteur by ensuring there is effective liaison with other groups, by attending meetings of other designated groups to advise and assist in an official capacity, by correspondence with such groups or by any other means considered appropriate by the Rapporteur. In the event that a Liaison Rapporteur is not appointed, the responsibility to ensure effective liaison resides with the Rapporteur.
- 4.3.4 Rapporteurs, and their Associate and Liaison Rapporteurs, play an indispensable role in coordinating increasingly detailed and often highly technical study. Consequently, their appointment should be primarily based on their expertise in the subject to be studied.
- 4.3.5 As a general principle, work by correspondence (including electronic messaging and telephone communications) is preferred and the number of experts' meetings should be kept to a strict minimum, consistent with the scale and milestones agreed by the parent group. Where possible, experts' group meetings in related areas of study or within a work area being managed by a JCG, should be coordinated. In any case this work should proceed in a continuous fashion between meetings of the parent group.

expert's meetings Expert's group meet;

- 4.3.6 The Rapporteur's responsibilities are:
  - to coordinate the detailed study in accordance with guidelines established at Working Party (or Study Group) level;
  - to the extent authorized by the Study Group, to act as a contact point and source of expertise for the
    allocated study topic with other ITU-TS and Radiocommunication Sector Study Groups, other
    Rapporteurs, other international organizations and other standards organizations (where appropriate) and
    the TSB;
  - to adopt methods of work (correspondence including the use of the TSB EDH system, meetings of experts, etc.) as considered appropriate for the task;
  - in consultation with the collaborators for the study topic, to establish a work programme, which should be approved and reviewed periodically by the parent group and which lists the tasks to be done, the results anticipated (e.g. titles of possible draft Recommendations), liaison required with other groups and specific milestones, including proposed meetings, for each stage of the work to be completed (see Appendix I for model format);
  - to ensure that the parent Working Party (or Study Group) is kept well informed of the progress of the study, particularly of work proceeding by correspondence or otherwise outside of the normal Study Group and Working Party meetings;
  - in particular, to submit a progress report to each of the parent group's meetings (see suggested format in Appendix II), where possible this report should be submitted as a white contribution when substantial progress has been made and where draft new or revised Recommendations are concerned; however, where little or no progress has been made, or the relative timing of meetings requires it, the report may take the form of a temporary document available on the first day of the meeting;
  - to give the parent Working Party or Study Group and the TSB adequate advance notice of the intention to hold any meetings of experts (see § 4.3.10 below) particularly where such meetings are not included in the original programme of work;
  - to establish a group of active "collaborators" from the Working Party (or Study Group) where appropriate, with an updated list of those collaborators being given to the TSB at each Working Party meeting;
  - to delegate the relevant functions from the list above to Associate Rapporteurs and/or Liaison
     Rapporteurs as necessary.
- 4.3.7 The basic goal of each Rapporteur is to assist the Study Group or Working Party in developing new and revised Recommendations to meet changing requirements in telecommunication techniques and services. However, it must be clearly understood that Rapporteurs should not feel under any obligation to produce such texts unless a thorough study of the Question reveals a clear need for them. If it turns out that this is not the case, the work should be concluded with a simple report to the parent group establishing that fact.
- 4.3.8 Rapporteurs are responsible for the quality of their texts, submitted by the Study Group for publication. They shall be involved in the final review of that text prior to it being submitted to the publication process. This responsibility extends only to text in the original language and should take into account applicable time constraints. (See Resolution on Publication of ITU-T Recommendations.)
- 4.3.9 Rapporteurs should normally base any draft new or substantially revised Recommendations on written contribution(s) from ITU-TS members.
- 4.3.10 In conjunction with their work planning, Rapporteurs must give advance notice of any expert meetings they arrange, not only to the collaborators on their Question or project, but also to the Study Group (see § 4.3.11). The TSB is not required to circulate convening letters for meetings below Working Party level.

mulings of experts

- 4.3.11 The intention to hold expert meetings should be agreed in principle and publicized with as much notice as possible (normally at least two months) at Study Group or Working Party meetings (for inclusion in their reports) and via the TIES system, for example. Confirmation of the date and place of any experts' meeting should be provided to the collaborators (and any other ITU-TS members who have indicated an interest in attending or submitting a contribution to the meeting), to the relevant Working Party Chairman and to the TSB at least three weeks prior to the meeting.
- 4.3.12 Rapporteur meetings as such, should not be held during Working Party or Study Group meetings. However, Rapporteurs may be called upon to chair those portions of Working Party or Study Group meetings that deal with their particular area of expertise. In these cases Rapporteurs must recognize that the rules of the Working Party and Study Group meetings then apply and the more relaxed rules described above, particularly those that relate to document approvals and submission deadlines, would not apply.
- 4.3.13 The parent Working Party (or Study Group) must define clear terms of reference for each Rapporteur. The general direction to be followed in the study should be discussed, reviewed as necessary and agreed periodically by the parent group.

#### APPENDIX I

(to Resolution No. 1, Section 3)

### Rapporteur proposed Work Programme Format

The following format is recommended for a work programme proposed by a Rapporteur in accordance with § 4.3.6, Section 3.

- A. List parent group and known scheduled meeting dates of parent group
- B. Starting point and goal including references to existing documents
- C. Anticipated results in terms of possible draft new or revised Recommendations (List titles or provide descriptions)
- D. Specific tasks involved and milestone schedules
- E. Liaison required with other groups and schedules for transmitting liaisons and receiving replies
- F. Proposed rapporteur meetings, if any, for each stage of the work to be completed

#### APPENDIX II

(to Resolution No. 1, Section 3)

## Rapporteur Progress Report Format

The following format is recommended for the Progress Reports of Rapporteurs to enable a maximum transfer of information to all concerned:

- A. Brief summary of contents of report
- B. Conclusions or Recommendations sought to be endorsed
- C. Status of work with reference to work plan including baseline document if available
- D. Draft new or draft revised Recommendations
- E. Draft liaison in response to or requesting action by other Study Groups or organizations

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- F. Reference to normal or delayed Contributions considered part of assigned study
- G. Reference to submissions attributed to collaborators of other organizations
- H. Major issues remaining for resolution and draft agenda of future approved meeting, if any
- I. List of attendees at all meeting held since last progress report

Note - A Progress Report shall not be used as a vehicle to violate the rules concerning the submission of contributions that are inappropriate to the assigned study task.

#### **SECTION 4**

## TELECOMMUNICATION STANDARDIZATION ADVISORY GROUP

- The Telecommunication Standardization Advisory Group is open to all Administrations, and other duly authorized entities participating in the work of the ITU-TS. Its principal duties are to review priorities and strategies for activities in the Telecommunication Standardization Sector, to review progress in the implementation of its work programme, provide guidelines for the work of the Study Groups and to recommend measures, inter alia, to foster cooperation and coordination with other standards bodies, within its own Sector and with the Radiocommunication and Development Sectors and with the Strategic Planning Unit in the General Secretariat.
- This Group will identify changing requirements and provide advice on appropriate changes to be made to the priority of work in ITU-TS Study Groups, planning, and allocation of work between Study Groups, giving due regard to the cost and availability of resources within the Bureau and the Study Groups. The Group will monitor the activities of the JCGs and may also recommend their establishment, if appropriate. The Group may also advise on further improvements to the working methods of the Telecommunication Standardization Sector.
- The Group will be composed of representatives of Administrations, entities and organizations authorized in accordance with the provisions of Article 19 of the Convention (Geneva, 1992), and, as ex-officio members, the Study Group Chairmen or their designated representatives and the Director of the Telecommunication Standardization Bureau.
- Taking into account its advisory function, the Telecommunication Standardization Advisory Group will have no formal authority. The Study Group Chairmen provide for the action required within their Study Groups or Joint Coordination Groups and the Director provides the necessary liaison between the ITU-TS and other sectors and the General Secretariat of the ITU or other standards bodies.
- The Group holds regular scheduled meetings, included on the ITU-TS timetable of meetings and announced in accordance with § 4 of Section 2 of this Resolution. The meetings should take place as necessary, but at least once a year. In principle, the meetings should be scheduled to enable joint meetings with the Advisory Group of the Radiocommunication Sector, as required<sup>3</sup>).
- In the interest of minimizing the length and costs of the meetings, the Chairman of the Group should collaborate with the Director of the TSB in making appropriate advance preparation, for example by identifying the major issues for discussion.
- 7 In general, the same rules of procedure as for Study Groups in this Resolution should apply to this Group and its meetings, for example, for submission of contributions.

<sup>3)</sup> The Director and the Study Group Chairmen may use the opportunity of these meetings to consider any appropriate measure related to activities described in § 4 above.

#### RESOLUTION No. 7 (AMENDED)

# Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)

(Malaga-Torremolinos, 1984; Helsinki, 1993)

The WTSC,

considering

the purposes of the Union set forth in Article 1 of the International Telecommunication Constitution (Geneva, 1992) relating to the harmonization of telecommunication facilities,

#### considering further

the duties of the Telecommunication Standardization Sector (Chapter III of the Constitution, Geneva, 1992) of the International Telecommunication Union,

#### recognizing

the common interest of ISO, IEC and ISO/IEC Joint Technical Committee 1 (JTC 1) on one hand and ITU-TS on the other hand in the development of information technology standards, which take full account of the needs of manufacturers, users, and those responsible for communication systems,

#### and noting

that harmonious development of all telecommunications networks is proceeding with the determination of Member countries to work together in the ITU,

#### bearing in mind

- (a) the convergence of data processing and telecommunication which affects the connection of data processing and text processing equipments to public networks, and hence the Study Programmes and ITU-T Recommendations;
  - (b) that the working methods and timing of the organizations concerned are not the same,

#### and further noting

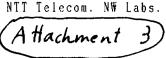
- (c) increasing demands on financial and specialized professional experts in both telecommunications technology and operations as well as computer science and terminal manufacturing and testing;
- (d) the progress made on the basis of existing procedures in the alignment of technical Recommendations with ISO, IEC and ISO/IEC JTC 1 in areas of joint interest, thanks to the excellent spirit of cooperation which has prevailed;
- (e) that principles of collaboration have been established between ISO and IEC and particularly with ISO/IEC Joint Technical Committee 1 (JTC 1) as contained in Recommendation A.23 and the ISO/IEC JTC 1 Directives;
  - (f) the increasing cost of developing international standards,

#### resolves

- to invite ISO and IEC to examine the ITU-TS Study Programme in the early stages of its studies and vice versa, in order to identify subjects where coordination seems desirable, and to so advise the Director of the TSB;
- to request the Director of the TSB, after consultation with the Study Group Chairmen concerned, to reply, and to furnish any additional information as it becomes available;

- 3 to request the Director of the TSB and the Telecommunication Standardization Advisory Group (TSAG) to consider and propose further improvements to the procedures for cooperation between the Telecommunication Standardization Sector, and ISO, IEC and, in particular, JTC 1;
- that the necessary contacts with ISO and/or IEC should be at the appropriate levels; within these arrangements and in accordance with Recommendation A.23, and the Guidelines for Cooperation therein, especially where the need for common text has been identified;
- to request the Chairmen of Study Groups in drafting replies to their questions to take into account the related programmes of work and the progress of projects in ISO, IEC and ISO/IEC JTC 1; further, to cooperate with these Organizations as widely as possible and by appropriate means, in order to:
  - a) ensure that the specifications which have been jointly drawn up remain aligned;
  - b) collaborate in drawing up other specifications in fields of joint interest;
- that for reasons of economy, any necessary collaborative meetings take place as far as possible in association with other meetings;
- that the report concerning such coordination indicates the status of alignment and compatibility of draft texts on points of common concern, in particular identifying any subject which could be dealt with in a single organization, and cases where cross-referencing would be helpful to users of published International Standards and Recommendations;
- 8 that administrations can contribute significantly to the coordination between ITU-TS on one hand and ISO and IEC on the other hand by ensuring adequate coordination of national activities associated with the three organizations, and that this be brought to the attention of all Administrations;
- 9 to request the Director of the TSB to bring this Resolution to the attention of the competent authorities of ISO and IEC;
- to request the Director of the TSB to bring this Resolution also to the attention of the RS.

## Recommendation A.20



# COLLABORATION WITH OTHER INTERNATIONAL ORGANIZATIONS OVER DATA TRANSMISSION

(Geneva, 1964; Mar del Plata, 1968; Geneva, 1972, 1976 and 1980; Malaga-Torremolinos, 1984; Helsinki, 1993)

The WTSC,

#### considering

- (a) that, according to Article 1 of the agreement between the United Nations and the International Telecommunication Union, the United Nations recognizes the International Telecommunication Union as the specialized agency responsible for taking such action as may be appropriate under its basic instrument for the accomplishment of the purposes set forth therein;
- (b) that Article 4 of the International Telecommunication Convention (Nairobi, 1982) states that the purposes of the Union are:
  - "a) to maintain and extend international cooperation between all Members of the Union for the improvement and rational use of telecommunications of all kinds, as well as to promote and to offer technical assistance to developing countries in the field of telecommunications;
  - b) to promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunication services, increasing their usefulness and making them, so far as possible, generally available to the public;
  - c) to harmonize the actions of nations in the attainment of those ends";
- (c) that Article 40 of the Convention (Nairobi, 1982) states that, in furtherance of complete international coordination on matters affecting telecommunication, the Union shall cooperate with international organizations having related interests and activities;
- (d) that in the study of data transmission the ITU-TS has to collaborate with the organizations dealing with data processing and office equipment and particularly the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC);
- (e) that this collaboration has to be organized in a manner that will avoid duplication of work and decisions that would be contrary to the principles set out above;

unanimously declares the view

that international standards for data transmission should be established with the following considerations in mind:

- (1) Clearly it will be the responsibility of the ITU-TS to lay down standards for transmission channels, i.e. aspects of data transmission which require a knowledge of telecommunication networks or affect performance of these networks.
- (2) The standardization of signal conversion terminal equipment (modems) is the province of the ITU-TS; the standardization of the junction (interface) between modem and the data terminal equipment is a matter of agreement between the ITU-TS and the ISO or the IEC.
  - (3) Devices designed to detect and (or) correct errors must take account of:
    - the error rate tolerable to the user;
    - the line transmission conditions:
    - the code, which has to meet the exigencies of the data alphabet and the requirements of error control (this must be such as to give an output satisfactory to the user) together with the requisite signalling (synchronism, repetition signals, etc.).

Standardization here may not come wholly within the ITU-TS's province, but the ITU-TS has very considerable interests at stake.

(4) The alphabet (definition 52.02 in the *List of definitions*) is a "table of correspondence between an agreed set of characters and the signals which represent them".

The ITU-TS and the ISO reached agreement on an alphabet for general (but not exclusive) use for data and message transmission and have standardized a common alphabet which is known as International Alphabet No. 5 (ITU-T Recommendation T.50) (ISO/646-1983: seven-bit coded character sets for information processing interchange).

Complementary study of some control characters of the alphabet should be effected in cooperation with each other.

(5) Coding (definition 52.02 in the List of definitions) is "a system of rules and conventions according to which the telegraph signals forming a message of the data signals forming a block should be formed, transmitted, received and processed". Hence, it consists of a transformation of the format of the signals in the alphabet for taking account of synchronous methods, and introduction of redundancy in accordance with the error control system. This is not a field in which the ITU-TS alone may be able to decide; however, no decision should be taken without reference to the Committee, because of the possible restrictions which transmission and switching peculiarities may impose on coding.

When the general switched network is used (telephone or telex) and when the error-control devices are subject to restrictions (switching signals – reserved sequences), it is the ITU-TS which is in fact responsible for any necessary standardization in conjunction with other bodies.

- (6) The limits to be observed for transmission performance on the transmission path (modem included) fall within the competence of the ITU-TS; the limits for the transmission performance of the sending equipment and the margin of terminal data equipment (depending on the terminal apparatus and the transmission path limits) should be fixed by agreement between the ISO and the ITU-TS.
- (7) In all instances, the ITU-TS alone can lay down manual and automatic operating procedures for the setting-up, holding and clearing of calls for data communications when the general switched networks are used, including type and form of signals to be interchanged at the interface between data terminal equipment and data circuit-terminating equipment.
- (8) When a public data network is involved, the ITU-TS has the responsibility to provide the Recommendations which apply. Where these Recommendations have an impact on the basic design and features of data processing systems and office equipment (normally DTE), they shall be the subject of consultation between ITU-TS and ISO and in some cases a mutual agreement may be desirable. Likewise when the ISO is developing or changing standards that may affect compatibility with the public data network there shall be consultation with the ITU-TS.

#### Recommendation A.21

## COLLABORATION WITH OTHER INTERNATIONAL ORGANIZATIONS ON ITU-TS-DEFINED TELEMATIC SERVICES<sup>1)</sup>

(Geneva, 1980; Malaga-Torremolinos, 1984; Helsinki, 1993)

The WTSC,

considering

(a) that, according to Article 1 of the agreement between the United Nations and the International Telecommunication Union, the United Nations recognizes the International Telecommunication Union as the specialized agency responsible for taking such action as may be appropriate under its basic instrument for the accomplishment of the purposes set forth therein;

<sup>1) &</sup>quot;Telematic services" is used for such services as Videotex, Teletex, facsimile, etc.

- (b) that Article 4 of the International Telecommunication Convention (Nairobi, 1982) states that the purposes of the Union are:
  - "a) to maintain and extend international cooperation between all Members of the Union for the improvement and rational use of telecommunication of all kinds, as well as to promote and to offer technical assistance to developing countries in the field of telecommunications;
  - to promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunication services, increasing their usefulness and making them, as far as possible, generally available to the public;
  - c) to harmonize the actions of nations in the attainment of those ends;"
- (c) that Article 40 of the Convention (Nairobi, 1982) states that in furtherance of complete international coordination on matters affecting telecommunication, the Union shall cooperate with international organizations having related interests and activities;
- (d) that this cooperation has to recognize the advisory capacity of organizations participating in the work of ITU-TS:
- (e) that, in the study of terminals for new ITU-TS-defined telematic services (e.g. Teletex, Telefax, Datafax, Bureaufax, Videotex), ISO in particular is invited to give advice to ITU-TS based on their work on data systems and data communications;
- (f) that this cooperation has to be organized in a manner that will avoid duplication of work and of decisions that would be contrary to the principles set out above,

## recognizes the following principles

- (1) it is the responsibility of the ITU-TS alone to make the decisions regarding the operational, technical (including factors needed to ensure international interworking) and tariff principles of the ITU-TS-defined services;
- (2) while the ITU-TS will define many of the relevant factors for the ITU-TS-defined telematic services, other international organizations will be invited to give specialist advice to ITU-TS on subjects that are of mutual interest, such as:
  - character sets and coding;
  - end-to-end control procedures including error protection;
  - interfaces between terminals and circuit terminating equipment;
  - terminal transmitter distortion and receiver margin;
  - paper sizes and text formatting;
- (3) standardization, if required, of hardware and software implementation of terminals, such as printing systems, paper feed, character type fonts, paper characteristics, etc., are outside the scope of ITU-TS.

#### Recommendation A.22

## COLLABORATION WITH OTHER INTERNATIONAL ORGANIZATIONS ON INFORMATION TECHNOLOGY

(Melbourne, 1988; Helsinki, 1993)

The WTSC,

considering

(a) that the purposes of the International Telecommunication Union and the recognition of ITU-TS relations with other organizations were given in 1964 and later, in WTSC Recommendation A.20 which concerns data transmission; and

 $\Pi$ 

- (b) that the principles of responsibility in regard to ITU-TS-defined Telematic services were given in 1980 and later, in Recommendation A.21 which mentions some subjects of mutual interest; and
- (c) that WTSC Resolution No. 7 in 1984 further recognized common interests with ISO and IEC concerning Information Technology and cooperation with them by appropriate means;

## recognizes the following principles

- (1) that in accordance with WTSC Recommendations A.20 and A.21 and Resolution No. 7, every effort should be made in establishing respective study programmes to identify overlapping studies with a view to avoiding duplication of work;
- (2) that where subjects are identified in which coordination seems desirable, text should be drawn up mutually and kept aligned;
- (3) that in carrying on the respective programmes of Information Technology studies, collaborative meetings at appropriate levels should be scheduled, where necessary. In drafting aligned text, it is necessary to take into account the respective timing for approvals and publication, particularly with the ISO/IEC Joint Technical Committee 1 (JTC1) on Information Technology;
- (4) that commonality of text with ISO/IEC and cross-references is considered desirable in certain areas of mutual interest, such as:
  - Message Handling Systems,
  - Directory Systems,
  - Open Systems Interconnection (OSI) architecture service definitions and protocol specifications,
  - certain areas of Interworking,
  - certain aspects of Telematic Services,
  - Document Architecture,
  - certain aspects of RNIS.

#### Recommendation A.23

## COLLABORATION WITH OTHER INTERNATIONAL ORGANIZATIONS ON INFORMATION TECHNOLOGY, TELEMATIC SERVICES AND DATA TRANSMISSION

(Helsinki 1993)

#### Introduction

The purposes of the International Telecommunication Union and the recognition of ITU-TS relations with other organizations were given in 1964 and later, in WTSC Recommendation A.20 which concerns data transmission.

The principles of responsibility in regard to ITU-TS-defined Telematic services were given in 1980 and later, in Recommendation A.21 which mentions some subjects of mutual interest.

WTSC Resolution No. 7 in 1984 and later, further recognized common interests with ISO and IEC concerning Information Technology and cooperation with them by appropriate means.

The principles of collaboration on Information Technology, particularly with the ISO/IEC Joint Technical Committee 1 (JTC I), were given in 1988 in Recommendation A.22.

The WTSC decides that the following principles should he applied

- that in accordance with Recommendations A.20, A.21 and A.22 and Resolution No. 7, every effort should be made in establishing respective study programmes to identify overlapping studies with a view to avoiding duplication of work;
- that where subjects are identified in which coordination seems desirable, text should be drawn up mutually and kept aligned;
- that in carrying on the respective programmes of Information Technology studies, collaborative meetings at appropriate levels should be scheduled, where necessary. In drafting aligned text, it is necessary to take into account the respective timing for approvals and publication, particularly with the ISO/IEC Joint Technical Committee 1 (JTC 1) on Information Technology.

A Guide for ITU-TS and ISO/IEC Cooperation exits, which includes drafting rules<sup>1)</sup> for presentation of common text, is attached to this Recommendation. These procedures, which have also been adopted by ISO/IEC JTC 1, should be used, with flexibility, according to need.

Recommendation A.30

## MAJOR DEGRADATION OR DISRUPTION OF SERVICE

(Melbourne, 1988; Helsinki, 1993)

When exceptional circumstances causing a major degradation or disruption of service (e.g. natural disasters, strikes, facility outages, etc.) occur, Administrations should notify the Secretary-General of such conditions and of the return to normal conditions. The Secretary-General shall use the most appropriate means of telecommunications to bring the information received to the attention of affected Administrations. Other Recommendations specifically dealing with measures to be taken under such circumstances should be consulted for the procedures to be followed.

<sup>1)</sup> The Guide, the drafting rules and a template for applying these rules are available as separate items from the TSB for persons preparing ITU/TSHSO/IEC texts.