International Telecommunication Union

ITU-T
TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU

WTSA 2012
Dubai, UAE

WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY PROCEEDINGS

DUBAI, 20-29 NOVEMBER 2012

ITU

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Dubai, 20-29 November 2012

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

World Telecommunication Standardization Assembly Proceedings

(Dubai, 2012)

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PART 1

Resolutions and Opinions adopted by the Assembly of the ITU Telecommunication Standardization Sector

CONTENTS

RESOLUTION 1 (Rev. Dubai, 2012)

Rules of procedure of the ITU Telecommunication Standardization Sector

(Dubai, 2012)[1]

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that the functions, duties and organization of the ITU Telecommunication Standardization Sector (ITU-T) are stated in Article 17 of the ITU Constitution and Articles 13, 14, 14A, 15 and 20 of the ITU Convention;

b) that, in accordance with the above articles of the Constitution and Convention, ITU-T shall study technical, operating and tariff questions and adopt Recommendations with a view to standardizing telecommunications on a worldwide basis;

c) that the ITU-T Recommendations resulting from these studies must be in harmony with the International Telecommunication Regulations in force, complement the basic principles therein and assist all those concerned in the provision and operation of telecommunication services to meet the objectives set down in the relevant articles of those Regulations;

d) that, accordingly, the rapid developments in telecommunication technology and services require timely and reliable ITU-T Recommendations to assist all Member States in the balanced development of their telecommunications;

e) that general working arrangements of ITU-T are stated in the Convention;

f) that the General Rules of conferences, assemblies and meetings of the Union adopted by the Plenipotentiary Conference, and Resolution 165 (Guadalajara, 2010) of the Plenipotentiary Conference, on deadlines for the submission of proposals and procedures for the registration of participants for conferences and assemblies of the Union, apply to the World Telecommunication Standardization Assembly (WTSA);

g) that, in accordance with No. 184A of the Convention, WTSA is authorized to adopt the working methods and procedures for the management of the activities of ITU-T in accordance with No. 145A of the Constitution;

h) that careful review of the more detailed working arrangements has been made in order to adapt them to meet the increasing demand for developing Recommendations with the most effective use of the limited resources available to Member States, Sector Members and ITU headquarters,

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[1] Previously published (Geneva, 1956 and 1958; New Delhi, 1960; Geneva, 1964; Mar del Plata, 1968; Geneva, 1972, 1976 and 1980, Malaga-Torremolinos, 1984; Melbourne, 1988; Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008).

resolves

that the provisions referred to in *considering e)*, *f), g)* and *h)* above shall be further elaborated by the provisions of this resolution and in the resolutions to which they refer, bearing in mind that, in the case of inconsistency, the Constitution, the Convention, the International Telecommunication Regulations and the General Rules of conferences, assemblies and meetings of the Union (in that order) shall prevail over this resolution.

SECTION 1

World Telecommunication Standardization Assembly

1.1 The World Telecommunication Standardization Assembly (WTSA), in undertaking the duties assigned to it in Article 18 of the ITU Constitution, Article 13 of the ITU Convention and the General Rules of Conferences, Assemblies and Meetings of the Union, shall conduct the work of each assembly by setting up committees and group(s) to address organization, work programme, budget control and editorial matters, and to consider other specific matters if required.

1.2 It shall establish a Steering Committee, presided over by the chairman of the assembly, and composed of the vice-chairman of the assembly and the chairmen and vice-chairmen of the committees and any group(s) created by the assembly.

1.3 WTSA shall establish resolutions which define working methods and identify priority issues. Prior to and during the development process the following questions should be taken into consideration:

a) If an existing Plenipotentiary Conference resolution identifies a priority issue, the need for a similar WTSA resolution should be questioned

b) If an existing resolution identifies a priority issue, the need to recycle this resolution at various conferences or assemblies should be questioned

c) If only editorial updates are required to a WTSA resolution, the need to produce a revised version should be questioned.

1.4 WTSA shall establish a Budget Control Committee and an Editorial Committee, the tasks and responsibilities of which are set out in the General Rules of conferences, assemblies and meetings of the Union (General Rules, Nos. 69-74):

a) The "Budget Control Committee", *inter alia*, examines the estimated total expenditure of the assembly and estimates the financial needs of ITU-T up to the next WTSA and the costs entailed by the execution of the decisions of the assembly.

b) The "Editorial Committee" perfects the wording of texts arising from WTSA deliberations, such as resolutions, without altering their sense and substance, and aligns the texts in the official languages of the Union.

1.5 In addition to the steering, budget control and editorial committees, the two following committees are set up:

a) The "Committee on Working Methods of ITU-T", which submits to the plenary meeting reports including proposals on the ITU-T working methods for implementation of the ITU-T work programme, on the basis of the Telecommunication Standardization Advisory Group (TSAG) reports submitted to the assembly and the proposals of ITU Member States and ITU-T Sector Members.

b) The "Committee on the ITU-T Work Programme and Organization", which submits to the plenary meeting reports including proposals on the programme and organization of the work of ITU-T consistent with ITU-T strategy and priorities, on the basis of the TSAG reports submitted to the assembly and the proposals of ITU Member States and ITU-T Sector Members. It shall specifically:

   i) propose a set of study groups;

   ii) review the Questions set for study or further study;

   iii) produce a clear description of the general area of responsibility within which each study group may maintain existing and develop new Recommendations, in collaboration with other groups, as appropriate;

   iv) allocate Questions to study groups, as appropriate;

   v) decide, when a Question or group of closely related Questions concerns several study groups, whether:

      – to accept the recommendation of TSAG;

      – to entrust the study to a single study group; or

      – to adopt an alternative arrangement;

   vi) review, and adjust as necessary, the lists of Recommendations for which each study group is responsible;

   vii) propose the establishment, where needed, of other groups in accordance with Nos. 191A and 191B of the Convention.

1.6 The chairmen of study groups and the chairman of TSAG and the chairmen of other groups set up by WTSA should make themselves available to participate in the Committee on the Work Programme and Organization.

1.7 The plenary meeting of a WTSA may set up other committees in accordance with No. 63 of the General Rules.

1.8 All committees and groups referred to in 1.2 to 1.7 above shall normally cease to exist with the closing of WTSA except, if required and subject to the approval of the assembly and within the budgetary limits, the Editorial Committee. The Editorial Committee may therefore hold meetings after the closing of the assembly to complete its tasks as assigned by the assembly.

1.9 Prior to the inaugural meeting of WTSA, in accordance with No. 49 of the General Rules, the heads of delegation shall meet to prepare the agenda for the first plenary meeting and make proposals for the organization of the assembly, including proposals for chairmanships and vice-chairmanships of WTSA and its committees and group(s).

1.10 During WTSA, the heads of delegation shall meet:

a) to consider the proposals of the Committee on the ITU-T Work Programme and Organization concerning the work programme and the constitution of study groups in particular;

b) to draw up proposals concerning the designation of chairmen and vice-chairmen of study groups, TSAG and any other groups established by WTSA (see Section 2).

1.11 The programme of work of WTSA shall be designed to provide adequate time for consideration of the important administrative and organizational aspects of ITU-T. As a general rule:

1.11.1 WTSA shall consider reports from the Director of the Telecommunication Standardization Bureau (TSB) and, pursuant to No. 187 of the Convention, from the study groups and TSAG, on the activities during the previous study period, including a report from TSAG on the fulfilment of any specific functions that were assigned to it by the previous WTSA. While WTSA is in session, study group chairmen shall make themselves available to WTSA to supply information on matters which concern their study groups.

1.11.2 In those cases as indicated in Section 9, a WTSA may be asked to consider approval of one or more Recommendations. The report of any study group(s) or TSAG proposing such action should include information on why such action is proposed.

1.11.3 WTSA shall receive and consider the reports, including proposals of the committees it has established, and take final decisions on those proposals and on reports submitted to it by those committees and groups. On the basis of the proposals by the Committee on the Work Programme and Organization of ITU-T, it shall set up study groups and, where appropriate, other groups, and, taking into account consideration by the heads of delegation, appoint the chairmen and vice-chairmen of study groups, of TSAG and of any other groups it has established, taking account of Article 20 of the Convention and Section 3 below.

1.11.4 WTSA texts are defined as follows:

a) **Question**: Description of an area of work to be studied, normally leading to the production of one or more new or revised Recommendations.

b) **Recommendation**: An answer to a Question or part of a Question, or a text developed by the Telecommunication Standardization Advisory Group for the organization of the work of the ITU Telecommunication Standardization Sector.

NOTE – This answer, within the scope of existing knowledge and the research carried out by study groups and adopted in accordance with established procedures, may provide guidance on technical, organizational, tariff-related and operational matters, including working methods, may describe a preferred method or proposed solution for undertaking a specific task, or may recommend procedures for specific applications. These Recommendations should be sufficient to serve as a basis for international cooperation.

c) **Resolution**: A World Telecommunication Standardization Assembly text containing provisions on the organization, working methods and programmes of the ITU Telecommunication Standardization Sector.

1.12 In accordance with No. 191C of the Convention, WTSA may assign specific matters within its competence to TSAG indicating the action required on these matters.

1.13 Voting

Should there be a need to vote at WTSA, the vote will be conducted according to the relevant sections of the Constitution, Convention and the General Rules.

SECTION 2

Study groups and their relevant groups

2.1 Classification of study groups and their relevant groups

2.1.1 WTSA establishes study groups in order for each of them:

a) to pursue the goals laid down in a set of Questions related to a particular area of study in a task-oriented fashion;

b) to review and, as necessary, to recommend amendment or deletion of existing Recommendations and definitions within its general area of responsibility (as defined by WTSA), in collaboration with their relevant groups as appropriate.

2.1.2 To facilitate their work, study groups may set up working parties, joint working parties and rapporteur groups to deal with the tasks assigned to them.

2.1.3 A joint working party shall submit draft Recommendations to its lead study group.

2.1.4 A regional group may be established within a study group to deal with Questions and studies of particular interest to a group of Member States and Sector Members in an ITU region.

2.1.5 A study group may be set up by WTSA in order to carry out joint studies with the ITU Radiocommunication Sector (ITU-R) and prepare draft Recommendations on questions of common interest. ITU-T shall be responsible for the management of this study group and approval of its Recommendations. WTSA shall appoint the chairman and vice-chairman of the study group[2], in consultation with the Radiocommunication Assembly as appropriate, and receive the formal report of the work of the study group. A report for information may also be prepared for the Radiocommunication Assembly.

[2] In special cases, WTSA may appoint the chairman and request the Radiocommunication Assembly to appoint a vice-chairman.

2.1.6 A study group may be designated by WTSA or TSAG as the lead study group for ITU-T studies forming a defined programme of work involving a number of study groups. This lead study group is responsible for the study of the appropriate core Questions. In addition, in consultation with the relevant study groups and in collaboration, where appropriate, with other standards bodies, the lead study group has the responsibility to define and maintain the overall framework and to coordinate, assign (recognizing the mandates of the study groups) and prioritize the studies to be carried out by the study groups, and to ensure the preparation of consistent, complete and timely Recommendations. The lead study group shall inform TSAG on the progress of the work as defined in the scope of the lead study group activity. Issues which cannot be resolved by the study group should be raised for TSAG to offer advice and proposals for the direction of the work.

2.2 Meetings outside Geneva

2.2.1 Study groups or working parties may meet outside Geneva if invited to do so by Member States, ITU-T Sector Members or entities authorized in this respect by a Member State of the Union, and if the holding of a meeting outside Geneva is desirable (e.g. in association with symposiums or seminars). Such invitations shall be considered only if they are submitted to a WTSA or to an ITU-T study group meeting and they shall be finally planned and organized after consultation with the Director of TSB and if they are within the credits allocated to ITU-T by the Council.

2.2.2 For meetings held outside Geneva, the provisions of Resolution 5 (Kyoto, 1994) of the Plenipotentiary Conference as well as of ITU Council Decision 304 shall apply. Invitations to hold meetings of the study groups or their working parties away from Geneva shall be accompanied by a statement indicating the host's agreement to defray the additional expenditure involved and that it will provide at least adequate premises and the necessary furniture and equipment free of charge, except that in the case of developing countries equipment need not necessarily be provided free of charge if the government of the host so requests.

2.2.3 Should an invitation be cancelled for any reason, it shall be proposed to Member States or to other duly authorized entities that the meeting be convened in Geneva, in principle on the date originally planned.

2.3 Participation in meetings

2.3.1 Member States and other duly authorized entities shall be represented in the study groups and their relevant groups, such as working parties and rapporteur groups, in whose work they wish to take part, by participants registered by name and chosen by them as qualified to investigate satisfactory solutions to the Questions under study. Exceptionally, however, registration by Member States and other duly authorized entities[3] with a study group or its relevant group may be made without specifying the name of the participants concerned. Chairmen of meetings may invite individual experts as appropriate.

[3] See Article 19 of the Convention.

2.3.2 The meetings of Study Group 3 regional groups shall, in principle, be limited to delegates and representatives of Member States and operating agencies (for the definition of these terms see the Annex to the Constitution) in the region. However, each Study Group 3 regional group may invite other participants to attend all or part of a meeting to the extent that these other participants would be eligible to attend the meetings of the full study group.

2.3.3 The meetings of regional groups of other study groups shall, in principle, be limited to delegates and representatives from Member States, Sector Members and Associates of the study group concerned in the region. However, each regional group may invite other participants to attend all or part of a meeting, to the extent that these other participants would be eligible to attend the meetings of the full study group.

2.4 Reports of study groups to WTSA

2.4.1 All study groups shall meet sufficiently in advance of WTSA for the report of each study group to WTSA to reach administrations of Member States and Sector Members at least one month before WTSA.

2.4.2 The report of each study group to WTSA is the responsibility of the study group chairman, and shall include:

– a short but comprehensive summary of the results achieved in the study period;

– reference to all Recommendations (new or revised) that have been approved by the Member States during the study period;

– reference to all Recommendations deleted during the study period;

– reference to the final text of all draft Recommendations (new or revised) that are forwarded for consideration by WTSA;

– the list of new or revised Questions proposed for study;

– review of joint coordination activities for which it is the lead study group.

SECTION 3

Study group management

3.1 The study group chairmen perform the duties required of them within their study groups or within joint coordination activities.

3.2 Appointment of chairmen and vice-chairmen shall be primarily based upon demonstrated competence both in technical content of the study group concerned and in the management skills required. Those appointed should be active in the field of the study group concerned and committed to the work of the study group. Other considerations, including incumbency, shall be secondary.

3.3 The mandate of a vice-chairman shall be to assist the chairman in matters relating to the management of the study group, including substitution for the chairman at official ITU-T meetings or replacement of the chairman should he or she be unable to continue with study group duties. Each working party chairman provides technical and administrative leadership and should be recognized as having a role of equal importance to that of a study group vice-chairman.

3.4 On the basis of 3.2 above, appointed vice-chairmen should be considered first in the appointment of working party chairmen. However, that does not prevent other competent experts being appointed as working party chairmen.

3.5 To the extent possible, in accordance with WTSA Resolution 35 (Rev. Dubai, 2012), and taking into account the need for demonstrated competence, appointment or selection to the management team should utilize the resources of as broad a range of Member States and Sector Members as possible, at the same time recognizing the need to appoint only the number of vice-chairmen and working party chairmen necessary for the efficient and effective management and functioning of the study group, consistent with the projected structure and work programme.

3.6 In principle, a chairman, vice-chairman or working party chairman, on accepting this role, is expected to have the necessary support of the Member State or Sector Member to fulfil this commitment throughout the period to the next WTSA.

SECTION 4

Telecommunication Standardization Advisory Group

4.1 In accordance with Article 14A of the Convention, the Telecommunication Standardization Advisory Group (TSAG) shall be open to representatives of administrations of Member States and representatives of ITU-T Sector Members and to chairmen of the study groups and other groups or their designated representatives. The Director of TSB or the Director's designated representatives shall participate in TSAG. The chairmen of the study groups and other groups, according to the case, or their designated representatives (e.g. vice-chairmen) shall also participate in TSAG.

4.2 TSAG's principal duties are to review priorities, programmes, operations, financial matters and strategies for ITU-T's activities, to review progress in the implementation of ITU-T's work programme, to provide guidelines for the work of the study groups and to recommend measures, *inter alia*, to foster cooperation and coordination with other relevant bodies, within ITU-T and with the Radiocommunication (ITU-R) and Telecommunication Development (ITU-D) Sectors and the General Secretariat, and with other standardization organizations, forums and consortia outside ITU.

4.3 TSAG will identify changing requirements and provide advice on appropriate changes to be made to the priority of work in ITU-T study groups, planning, and allocation of work between study groups (and the coordination of that work with other Sectors), giving due regard to the cost and availability of resources within TSB and the study groups. TSAG shall monitor the activities of any joint coordination activities and may also recommend the establishment of such activities, if appropriate. TSAG may also advise on further improvements to ITU-T working methods. TSAG shall monitor the activities of the lead study groups and advise on the progress report as presented to TSAG. TSAG shall endeavour to ensure that the programmes of work across the study groups are successfully completed.

4.4 WTSA may assign temporary authority to TSAG between two consecutive WTSAs to consider and act on matters specified by WTSA. TSAG may consult with the Director on these matters, if necessary. WTSA should assure itself that the special functions entrusted to TSAG do not require financial expenses exceeding the ITU-T budget. The report on TSAG activity on the fulfilment of specific functions assigned to it, pursuant to No. 197I of the Convention, shall be submitted to the next WTSA. Such authority shall terminate when the following WTSA meets, although WTSA may decide to extend it for a specified period.

4.5 TSAG shall hold regular scheduled meetings, included on the ITU-T timetable of meetings. The meetings should take place as necessary, but at least once a year[4].

4.6 In the interest of minimizing the length and costs of the meetings, the chairman of TSAG should collaborate with the Director in making appropriate advance preparation, for example by identifying the major issues for discussion.

4.7 In general, the same rules of procedure that apply to study groups shall also apply to TSAG and its meetings. However, at the discretion of the chairman, written proposals may be submitted during the TSAG meeting provided they are based on ongoing discussions taking place during the meeting and are intended to assist in resolving conflicting views which exist during the meeting.

4.8 A report for the Director on its activities shall be prepared by TSAG after each meeting. This report is to be made available within an objective of six weeks after the closure of the meeting and is to be distributed in accordance with normal ITU-T procedures.

4.9 TSAG shall prepare a report for the assembly on the matters assigned to TSAG by the previous WTSA. At its last meeting prior to WTSA, TSAG shall, pursuant to No. 197H of the Convention, prepare a report which summarizes its activities since the previous WTSA. This report shall offer advice on the allocation of work, and proposals on ITU-T working methods and on strategies and relations with other relevant bodies inside and outside ITU, as appropriate. The TSAG report to WTSA should also include proposals for WTSA Resolution 2, i.e. the titles of study groups with their responsibilities and mandates. These reports shall be submitted to the assembly by the Director.

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[4] The Director and the study group chairmen may use the opportunity of these meetings to consider any appropriate measure related to activities described in 4.4 and 5.5.

SECTION 5

Duties of the Director

5.1 The duties of the Director of TSB are outlined in Article 15 and relevant provisions of Article 20 of the Convention. These duties are further elaborated in this resolution.

5.2 The Director shall take the necessary preparatory measures for meetings of WTSA, TSAG, study groups and other groups, and coordinate their work so that the meetings produce the best results in the shortest possible time. The Director shall fix, by agreement with TSAG and study group chairmen, the dates and programmes of TSAG, study group and working party meetings and shall group these meetings in time according to the nature of the work and the availability of TSB and other ITU resources.

5.3 The Director shall suggest editorial updates to WTSA resolutions and provide a recommendation as to whether the modifications are significant enough to warrant the production of a revised version.

5.4 The Director shall manage the allocation of the ITU-T financial and TSB human resources required for meetings administered by TSB, for dissemination of the associated documents to ITU Member States and Sector Members (meeting reports, contributions, etc.), for ITU-T publications, for the authorized operational support functions for the international telecommunication network and services (Operational Bulletin, code assignments, etc.) and for the operation of TSB.

5.5 The Director shall provide the necessary liaison between ITU-T and other Sectors and the General Secretariat of ITU and with other standards development organizations (SDOs).

5.6 In the Director's estimate of the financial needs of ITU-T until the next WTSA as part of the biennial budgetary preparatory process, the Director shall communicate to WTSA (for information) a summary of the accounts for the years which have elapsed since the preceding WTSA, and the estimated expenses of ITU-T to cover its financial requirements until the next WTSA for the subsequent biennial budgets and financial plan, as appropriate, taking into account the pertinent results of WTSA, including priorities.

5.7 The Director shall prepare the financial estimates in accordance with relevant provisions of the Financial Regulations and Financial Rules, taking into account the relevant results of WTSA, including priorities for the work of the Sector.

5.8 The Director shall submit for preliminary examination by the Budget Control Committee, and thereafter for approval by WTSA, the accounts for expenses incurred for the current WTSA.

5.9 The Director shall submit to WTSA a report on the proposals that have been received from TSAG (see 4.9) concerning the organization, terms of reference and work programme of study groups and other groups for the next study period. The Director may give views on these proposals.

5.10 In addition, the Director may, within the limits specified in the Convention, submit to WTSA any report or proposal which would help to improve the work of ITU-T, so that WTSA may decide what action to take. In particular, the Director shall submit to WTSA such proposals concerning the organization and terms of reference of the study groups for the next study period as may be considered necessary.

5.11 The Director may request assistance from the study group and TSAG chairmen regarding proposals for potential candidates for study group and TSAG chairmen and vice-chairmen, for consideration by the heads of delegation.

5.12 After the close of WTSA, the Director shall supply administrations of Member States and Sector Members taking part in the activities of ITU-T with a list of the study groups and other groups set up by WTSA, indicating the general areas of responsibility and the Questions that have been referred to the various groups for study, and requesting them to advise the Director of the study groups or other groups in which they wish to take part.

Furthermore, the Director shall supply the international organizations with a list of the study groups and other groups set up by WTSA, asking them to advise the Director of the study groups or other groups in which they wish to participate in an advisory capacity.

5.13 Administrations of Member States, Sector Members and other participating organizations are invited to supply these particulars after each WTSA as soon as possible and not later than two months after they have received the Director's circular, and to update them regularly.

5.14 In the interval between WTSAs, when circumstances so demand, the Director is authorized to take exceptional measures to ensure the efficiency of the work of ITU-T within the limits of the credits available.

5.15 In the interval between WTSAs, the Director may request assistance from the chairmen of study groups and the chairman of TSAG regarding the allocation of available financial and human resources to be able to assure the most efficient work of ITU-T.

5.16 In consultation with the chairmen of study groups and the chairman of TSAG, the Director shall ensure an appropriate flow of executive summary information on the work of the study groups. This information should be designed to assist in following and appreciating the overall significance of the work progressing in ITU-T.

5.17 The Director shall seek to foster cooperation and coordination with the other standardization organizations for the benefit of all members.

SECTION 6

Contributions

6.1 Contributions should be submitted not later than one month before the opening of WTSA, and at any event the submission deadline for all contributions to WTSA shall be not later than 14 calendar days before the opening of the WTSA in order to allow for their timely translation and thorough consideration by delegations. The Bureau shall immediately publish all contributions submitted to WTSA in their original language(s) on the WTSA website, even before their translation into the other official languages of the Union.

6.2 Contributions to study group, working party and TSAG meetings shall be submitted and formatted in accordance with Recommendations ITU-T A.1 and ITU-T A.2, respectively.

SECTION 7

Development and approval of Questions

7.1 Development of Questions

7.1.0 Development of a draft Question for approval and inclusion in the work programme of ITU-T may be processed, preferably:

a) through a study group and TSAG;

b) through a study group and further consideration in the relevant committee of WTSA, when the study group meeting is its last prior to a WTSA;

c) through a study group where urgent treatment is justified;

or,

through WTSA (see 7.1.10).

7.1.1 Member States, and other duly authorized entities, shall submit proposed Questions as contributions to the study group meeting which will consider the Question(s).

7.1.2 Each proposed Question should be formulated in terms of specific task objective(s) and shall be accompanied by appropriate information as listed in Appendix I to this resolution. This information should clearly justify the reasons for proposing the Question and indicate the degree of urgency, while taking into account the relationship of the work of other study groups and standardization bodies.

7.1.3 TSB shall distribute the proposed Questions to the Member States and Sector Members of the study group(s) concerned so as to be received at least one month before the study group meeting which will consider the Question(s).

7.1.4 New or revised Questions may also be proposed by a study group itself during a meeting.

7.1.5 Each study group shall consider the proposed Questions to determine:

i) the clear purpose of each proposed Question;

ii) the priority and urgency of new Recommendation(s) desired, or changes to existing Recommendations resulting from the study of the Questions;

iii) that there be as little overlap of work as possible between the proposed Questions both within the study group concerned and with Questions of other study groups and the work of other standardization bodies.

7.1.6 Agreement by a study group to submit proposed Questions for approval is achieved by reaching consensus among the Member States and Sector Members present at the study group meeting when the proposed Question is discussed that the criteria in 7.1.5 have been satisfied.

7.1.7 TSAG shall be made aware by liaison statement from the study groups of all proposed Questions, in order to allow it to consider the possible implications for the work of all ITU-T study groups or other groups. In collaboration with the author(s) of proposed Question(s), TSAG shall review and, if appropriate, may recommend changes to these Question(s), taking into account the criteria in 7.1.5 above.

7.1.8 The opportunity for review of the Questions by TSAG prior to approval may be dispensed with only where urgent approval of the proposed Question is justified in the opinion of the Director of TSB, after consulting the chairman of TSAG and the chairman of any other study groups where overlap or liaison problems could arise.

7.1.9 A study group may agree to commence work on a draft Question before its approval.

7.1.10 If, despite the above provisions, a Member State or Sector Member proposes a Question directly to a WTSA, the latter either approves the Question or invites the Member State or Sector Member to submit the proposed Question to the next meeting of the relevant study group(s) to allow time for its thorough examination.

7.1.11 The Director shall take account of the relevant provisions of WTSA Resolution 44 (Rev. Dubai, 2012) in responding to any request submitted by developing countries[5] through the Telecommunication Development Bureau (BDT), particularly with regard to matters connected with training, information, examination of questions which are not covered by the ITU-D study groups, and technical assistance required for the examination of certain questions by the ITU-D study groups. In order to allow for the specific characteristics of countries with economies in transition, developing countries, and especially the least developed countries, TSB shall take account of the relevant provisions of WTSA Resolution 44 (Rev. Dubai, 2012) in responding to any request submitted by such countries through BDT, particularly with regard to matters related to training, information, examination of questions which are not covered by the ITU-D study groups, and technical assistance required for the examination of certain questions by the ITU-D study groups.

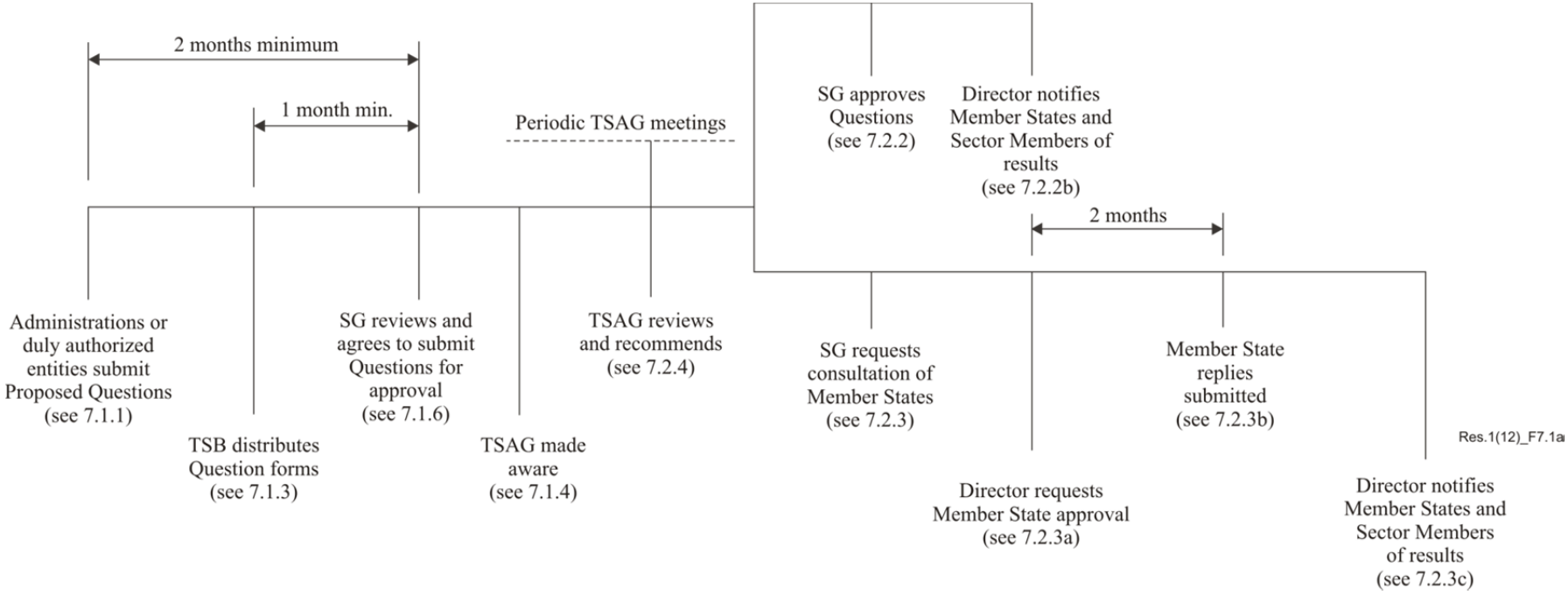
7.2 Approval of Questions between WTSAs (see Figure 7.1a)

7.2.1 Between WTSAs, and after development of proposed Questions (see 7.1 above), the approval procedure for new or revised Questions is set out in 7.2.2 and 7.2.3 below.

[5] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

FIGURE 7.1A

Approval of questions between WTSAs



7.2.2 New or revised Questions may be approved by a study group if consensus at the study group meeting is achieved. In addition, some Member States and Sector Members (normally at least four) have to commit themselves to support the work, e.g. by contributions, provision of rapporteurs or editors and/or hosting of meetings. The names of the supporting entities should be recorded in the meeting report, together with the type of support to which they are committing.

a) The proposed Question, once approved, shall have the same status as Questions approved at a WTSA.

b) The Director shall notify the results by circular.

7.2.3 Alternatively, if the support as described in 7.2.2 has been offered, but consensus of the study group to approve a new or revised Question is not achieved, the study group may request approval by consultation of the Member States.

a) The Director shall request Member States to notify the Director within two months whether they approve or do not approve the proposed new or revised Question.

b) A proposed Question is approved and has the same status as Questions approved at a WTSA, if:

- a simple majority of all the Member States responding are in agreement; and
- at least ten replies are received.

c) The Director shall notify the results of the consultation by circular. (See also 8.2.)

7.2.4 Between WTSAs, TSAG shall review the work programme of ITU-T and recommend revisions as necessary.

7.2.5 In particular, TSAG shall review any new or revised Question to determine whether it is in line with the mandate of the study group. TSAG may then endorse the text of any proposed new or revised Question or may recommend that it be modified. TSAG will note the text of any new or revised Question already approved.

7.3 Approval of Questions by WTSA (see Figure 7.1b)

7.3.1 At least two months prior to WTSA, TSAG shall meet to consider, review and, where appropriate, recommend changes to Questions for WTSA's consideration, while ensuring that the Questions respond to the overall needs and priorities of the ITU-T work programme and are duly harmonized to:

i) avoid duplication of effort;

ii) provide a coherent basis for interaction between study groups;

iii) facilitate monitoring overall progress in the drafting of Recommendations;

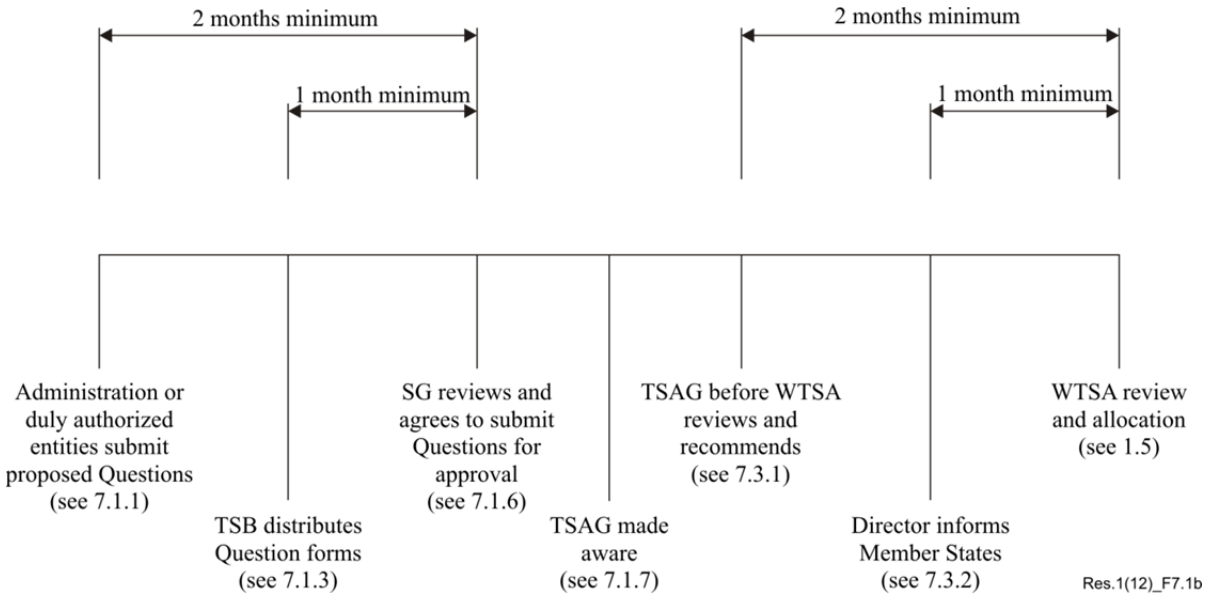
iv) facilitate cooperative efforts with other standardization organizations.

7.3.2 At least one month before WTSA, the Director shall inform the Member States and Sector Members of the list of proposed Questions, as agreed by TSAG.

7.3.3 The proposed Questions may be approved by WTSA in accordance with the General Rules.

FIGURE 7.1B

Approval of Questions at WTSA



7.4 Deletion of Questions

Study groups may decide in each individual case which of the following alternatives is the most appropriate for the deletion of a Question.

7.4.1 Deletion of a Question between WTSAs

7.4.1.1 At a study group meeting, it may be agreed by consensus among those present to delete a Question, e.g. either because work has been terminated or because no contributions have been received at that meeting and at the previous two study group meetings. Notification about this agreement, including an explanatory summary about the reasons for the deletion, shall be provided by a circular. If a simple majority of the Member States responding has no objection to the deletion within two months, the deletion will come into force. Otherwise the issue will be referred back to the study group.

7.4.1.2 Those Member States which indicate disapproval are requested to provide their reasons and to indicate the possible changes that would facilitate further study of the Question.

7.4.1.3 Notification of the result will be given in a circular, and TSAG shall be informed by the Director. In addition, the Director shall publish a list of deleted Questions whenever appropriate, but at least once by the middle of a study period.

7.4.2 Deletion of a Question by WTSA

Upon the decision of the study group, the chairman shall include in his or her report to WTSA the request to delete a Question. WTSA will decide as appropriate.

SECTION 8

Selection of Recommendation approval process

8.1 Selection of the approval process

"Selection" refers to the act of choosing the alternative approval process (AAP) (see Recommendation ITU-T A.8) or choosing the traditional approval process (TAP) (see Section 9) for the development and approval of new and revised Recommendations.

8.1.1 Selection at a study group meeting

As a general approach, Recommendations in ITU-T Standardization Domain 04 (numbering/addressing) and Domain 11 (tariff/charging/accounting) are assumed to follow TAP. Likewise, Recommendations not in Domains 04 or 11 are assumed to follow AAP. However, explicit action at the study group meeting can change the selection from AAP to TAP, and vice versa, if so decided by consensus of the Member States and Sector Members present at the meeting.

If consensus is not achieved, the same process used at a WTSA, as described in 1.13 above, shall be used to decide the selection.

8.1.2 Selection at WTSA

As a general approach, Recommendations in ITU-T Standardization Domain 04 (numbering and addressing) and Domain 11 (tariff, charging and accounting) are assumed to follow TAP. Likewise, Recommendations not in Domains 04 or 11 are assumed to follow AAP. However, explicit action at WTSA can change the selection from AAP to TAP, and vice versa.

8.2 Notification of the selection

When the Director of TSB notifies the membership that a Question has been approved, the Director shall also include notification of the proposed selection for the resulting Recommendations. If there are any objections, which must be based on the provisions of No. 246D of the Convention, they shall be forwarded to the next study group meeting, in writing, where there can be a reconsideration of the selection (see 8.3 below).

8.3 Reconsideration of the selection

At any time, up to the decision to put a draft new or revised Recommendation into the "Last Call" comment process, the selection can be reconsidered based on the provisions of No. 246D of the Convention. Any request for reconsideration must be in writing (e.g. a contribution, or if submitted after the expiry of the deadline for a contribution, a written document that is then reflected in a temporary document) to a study group or working party meeting. A proposal from a Member State or Sector Member to change the selection has to be seconded before it can be addressed by the meeting.

Using the same procedures as described in 8.1.1, the study group will decide if the selection will remain as is, or if it will be changed.

The selection may not be changed once the Recommendation has been consented (Recommendation ITU-T A.8, clause 3.1), or determined (see 9.3.1 below).

SECTION 9

Approval of new and revised Recommendations using the traditional approval process

9.1 General

9.1.1 Procedures for approval of Recommendations which require formal consultation of Member States (traditional approval process) are found in this section of Resolution 1. According to No. 246B of the Convention, draft new or revised ITU-T Recommendations are adopted by a study group in accordance with procedures established by WTSA, and Recommendations which do not require formal consultation of Member States for their approval are considered approved. Procedures for such approval of Recommendations (alternative approval process) are found in Recommendation ITU-T A.8. In accordance with the Convention, the status of Recommendations approved is the same for both methods of approval.

9.1.2 In the interests of speed and efficiency, approval should normally be sought as soon as the relevant texts are mature, by a formal consultation in which the Director of TSB asks Member States to delegate authority to the relevant study group to proceed with the approval process and subsequent agreement at a formal meeting of the study group.

The relevant study group may also seek approval at a WTSA.

9.1.3 In accordance with No. 247A of the Convention, the status of Recommendations approved is the same whether approval is at a study group meeting or at a WTSA.

9.2 Process

9.2.1 Study groups should apply the process described below for seeking the approval of all draft new and revised Recommendations, when they have been developed to a mature state. See Figure 9.1 for the sequence of events.

NOTE – A Study Group 3 regional group shall decide on its own to apply this procedure for the limited purpose of establishing regional tariffs. Any Recommendation adopted according to this procedure shall only apply to the Member States that are part of the regional group. The chairman of Study Group 3 shall be informed of the decision to apply this approval procedure and Study Group 3 at its next plenary meeting will examine the draft Recommendation in broad terms. If there is no objection as regards principles and methodology, the procedure shall be initiated. Only the Member States of the Study Group 3 regional group will be consulted by the Director for the approval of the draft Recommendation concerned.

9.2.2 Cases where approval of new or revised Recommendations should be deferred for consideration at a WTSA are:

a) Recommendations of an administrative nature concerning ITU-T as a whole;

b) where the study group concerned considers it desirable that WTSA itself should debate and resolve particularly difficult or delicate issues;

c) where attempts to achieve agreement within the study groups have failed due to non-technical issues such as differing views on policy.

9.3 Prerequisites

9.3.1 Upon request of the study group chairman, the Director shall explicitly announce the intention to apply the approval procedure set out in this resolution when convening the meeting of the study group. Such requests shall be based upon a determination at a study group or working party meeting or, exceptionally, at a WTSA, that work on a draft Recommendation is sufficiently mature for such action. At this stage the draft Recommendation is considered to be "determined". The Director shall include the summary of the Recommendation. Reference shall be provided to the report or other documents where the text of the draft new or revised Recommendation to be considered may be found. This information shall also be distributed to all Member States and Sector Members.

9.3.2 Study groups are encouraged to establish an editing group in each study group to review the texts of new and revised Recommendations for suitability in each of the official languages.

9.3.3 The text of the draft new or revised Recommendation must be available to TSB in a final edited form in at least one of the official languages at the time that the Director makes the announcement of the intended application of the approval procedure set out in this resolution. Any associated electronic material included in the Recommendation (e.g. software, test vectors, etc.) must also be made available to TSB at the same time. A summary that reflects the final edited form of the draft Recommendation must also be provided to TSB in accordance with 9.3.4 below. The invitation to the meeting, together with the summary of the draft new or revised Recommendation, announcing the intended application of this approval procedure, shall be sent by the Director to all Member States and Sector Members so as to be received at least three months before the meeting. The invitation and the enclosed summary shall be distributed according to normal procedures, which include the use of the appropriate official languages.

9.3.4 The summary shall be prepared in accordance with the author's guide for drafting ITU-T Recommendations. It is a brief outline of the purpose and content of the new or revised draft Recommendation and, where appropriate, the intent of the revisions. No Recommendation shall be considered as complete and ready for approval without this summary statement.

9.3.5 The text of the draft new or revised Recommendation must have been distributed in the official languages at least one month prior to the announced meeting.

9.3.6 Approval may only be sought for a draft new or revised Recommendation within the study group's mandate as defined by the Questions allocated to it, in accordance with No. 192 of the Convention. Alternatively, or additionally, approval may be sought for amendment of an existing Recommendation within the study group's responsibility and mandate (see WTSA Resolution 2).

9.3.7 Where a draft new or revised Recommendation falls within the mandate of more than one study group, the chairman of the study group proposing the approval should consult and take into account the views of any other study group chairmen concerned before proceeding with the application of this approval procedure.

9.3.8 ITU-T Recommendations are to be elaborated with a view to being applied as broadly and openly as possible, so as to ensure their widespread use. Recommendations are to be elaborated keeping in mind the requirements relating to intellectual property rights and in accordance with the Common Patent Policy for ITU-T/ITU-R/ISO/IEC available at http://www.itu.int/ITU-T/ipr/. For example:

9.3.8.1 Any party participating in the work of ITU-T should, from the outset, draw the attention of the Director of TSB to any known patent or to any known pending patent application, either of their own or of other organizations. The "Patent Statement and Licensing Declaration" form from the ITU-T website is to be used.

9.3.8.2 ITU-T non-member organizations that hold patent(s) or pending patent application(s), the use of which may be required in order to implement an ITU-T Recommendation, can submit a "Patent Statement and Licensing Declaration" to TSB using the form available at the ITU-T website.

9.3.9 In the interests of stability, once a new or revised Recommendation has been approved, approval should not normally be sought within a reasonable period of time for any further amendment of the new text or the revised portion, respectively, unless the proposed amendment complements rather than changes the agreement reached in the previous approval process or a significant error or omission is discovered. As a guideline, in this context "a reasonable period of time" would be at least two years in most cases.

9.3.10 Any Member States considering themselves to be adversely affected by a Recommendation approved in the course of a study period may refer their case to the Director, who shall submit it to the relevant study group for prompt attention.

9.3.11 The Director shall inform the next WTSA of all cases notified in conformity with 9.3.10 above.

9.4 Consultation

9.4.1 Consultation of the Member States encompasses the time period and procedures beginning with the announcement by the Director of the intention to apply the approval procedure (9.3.1) up to seven working days before the beginning of the study group meeting. The Director shall request Member States' opinions within this period on whether they assign authority to the study group that the draft new or revised Recommendations should be considered for approval at the study group meeting.

9.4.2 If TSB has received a statement (or statements) indicating that the use of intellectual property, e.g. the existence of a patent, or a copyright claim, may be required in order to implement a draft Recommendation, the Director shall indicate this situation in the circular announcing the intention to invoke the Resolution 1 approval process (see Appendix II to this resolution).

9.4.3 The Director shall inform the Directors of the other two Bureaux, as well as recognized operating agencies, scientific and industrial organizations and international organizations participating in the work of the study group in question, that Member States are being asked to respond to a consultation on a proposed new or revised Recommendation. Only Member States are entitled to respond (see 9.5.2 below).

9.4.4 Should any Member States be of the opinion that consideration for approval shall not proceed, they should advise their reasons for disapproving and indicate the possible changes that would facilitate further consideration and approval of the draft new or revised Recommendation.

9.4.5 If 70 per cent or more of the replies from Member States support consideration for approval at the study group meeting (or if there are no replies), the Director shall advise the chairman that consideration of the approval may proceed. (With the authorization given by Member States that the study group may proceed with the approval process, they also recognize that the study group may make the necessary technical and editorial changes in accordance with 9.5.2 below.)

9.4.6 If less than 70 per cent of the replies received by the due date support consideration for approval at the study group meeting, the Director shall advise the chairman that consideration of the approval may not proceed at that meeting. (Nevertheless, the study group should consider the information provided under 9.4.4 above.)

9.4.7 Any comments received along with responses to the consultation shall be collected by TSB and submitted as a temporary document to the next meeting of the study group.

9.5 Procedure at study group meetings

9.5.1 The study group should review the text of the draft new or revised Recommendation as referred to in 9.3.1 and 9.3.3 above. The meeting may then accept any editorial corrections or other amendments not affecting the substance of the Recommendation. The study group shall assess the summary statement referred to in 9.3.4 in terms of its completeness and ability to concisely convey the intent of the draft new or revised Recommendation to a telecommunication expert who has not participated in the study group work.

9.5.2 Technical and editorial changes may only be made during the meeting as a consequence of written contributions, of results from the consultation process (see 9.4 above) or of liaison statements. Where proposals for such revisions are found to be justified but to have a major impact on the intent of the Recommendation or to depart from points of principle agreed at the previous study group or working party meeting, consideration of this approval procedure should be deferred to another meeting. However, in justified circumstances the approval procedure may still be applied if the chairman of the study group, in consultation with TSB, considers:

– that the proposed changes are reasonable (in the context of the advice issued under 9.4 above) for those Member States not represented at the meeting, or not represented adequately under the changed circumstances; and

– that the proposed text is stable.

9.5.3 After debate at the study group meeting, the decision of the delegations to approve the Recommendation under this approval procedure must be unopposed (but see 9.5.4 regarding reservations, 9.5.5 and 9.5.6). See No. 239 of the Convention.

9.5.4 In cases where a delegation does not elect to oppose approval of a text, but would like to register a degree of reservation on one or more aspects, this shall be noted in the report of the meeting. Such reservations shall be mentioned in a concise note appended to the text of the Recommendation concerned.

9.5.5 A decision must be reached during the meeting on the basis of a text available in its final form to all participants at the meeting. Exceptionally, but only during the meeting, a delegation may request more time to consider its position. Unless the Director is advised of formal opposition from the Member State to which the delegation belongs within a period of four weeks from the end of the meeting, the Director shall proceed in accordance with 9.6.1.

9.5.5.1 A Member State which requested more time to consider its position and which then indicates disapproval within the four-week interval specified in 9.5.5 above is requested to state its reasons and to indicate the possible changes that would facilitate further consideration and future approval of the draft new or revised Recommendation.

9.5.5.2 If the Director is advised of formal opposition, the study group chairman, after consultation with the parties concerned, may proceed according to 9.3.1 above, without further determination at a subsequent working party or study group meeting.

9.5.6 A delegation may advise at the meeting that it is abstaining from the decision to apply the procedure. This delegation's presence shall then be ignored for the purposes of 9.5.3 above. Such an abstention may subsequently be revoked, but only during the course of the meeting.

9.6 Notification

9.6.1 Within four weeks of the closing date of the study group meeting or, exceptionally, four weeks after the period described in 9.5.5, the Director shall notify whether the text is approved or not, by circular. The Director shall arrange that this information is also included in the next available ITU Notification. Within this same time period, the Director shall also ensure that any Recommendation agreed to during the study group decision meeting is available online in at least one official language, with an indication that the Recommendation may not be in its final publication form.

9.6.2 Should minor, purely editorial amendments or corrections of evident oversights or inconsistencies in the text as presented for approval be necessary, TSB may correct these with the approval of the chairman of the study group.

9.6.3 The Secretary-General shall publish the approved new or revised Recommendations in the official languages as soon as practicable, indicating, as necessary, a date of entry into effect. However, in accordance with Recommendation ITU-T A.11, minor amendments may be covered by corrigenda rather than a complete reissue. Also, where appropriate, texts may be grouped to suit market needs.

9.6.4 Text shall be added to the cover sheets of all new and revised Recommendations urging users to consult the ITU-T patent database and the ITU-T software copyright database. Suggested wording is:

– "ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed intellectual property right. ITU takes no position concerning the evidence, validity or applicability of claimed intellectual property rights, whether asserted by ITU Member States and Sector Members or by others outside of the Recommendation development process.

– As of the date of approval of this Recommendation, ITU had/had not received notice of intellectual property, protected by patents/software copyrights, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the appropriate ITU-T databases available via the ITU-T website."

9.6.5 See also Recommendation ITU-T A.11 concerning the publication of lists of new and revised Recommendations.

9.7 Correction of defects

When a study group identifies the need for implementers to be made aware of defects (e.g. typographical errors, editorial errors, ambiguities, omissions or inconsistencies and technical errors) in a Recommendation, one mechanism that may be employed is an implementers' guide. This guide is an historical document recording all identified defects and their status of correction, from their identification to final resolution. Implementers' guides shall be agreed by the study group or agreed by one of its existing working parties with the concurrence of the study group chairman. Implementers' guides shall be made available by posting on the ITU-T website with open access.

9.8 Deletion of Recommendations

Study groups may decide in each individual case which of the following alternatives is the most appropriate for the deletion of Recommendations.

9.8.1 Deletion of Recommendations by WTSA

Upon the decision of the study group, the chairman shall include in his report to WTSA the request to delete a Recommendation. WTSA should consider the request and act as appropriate.

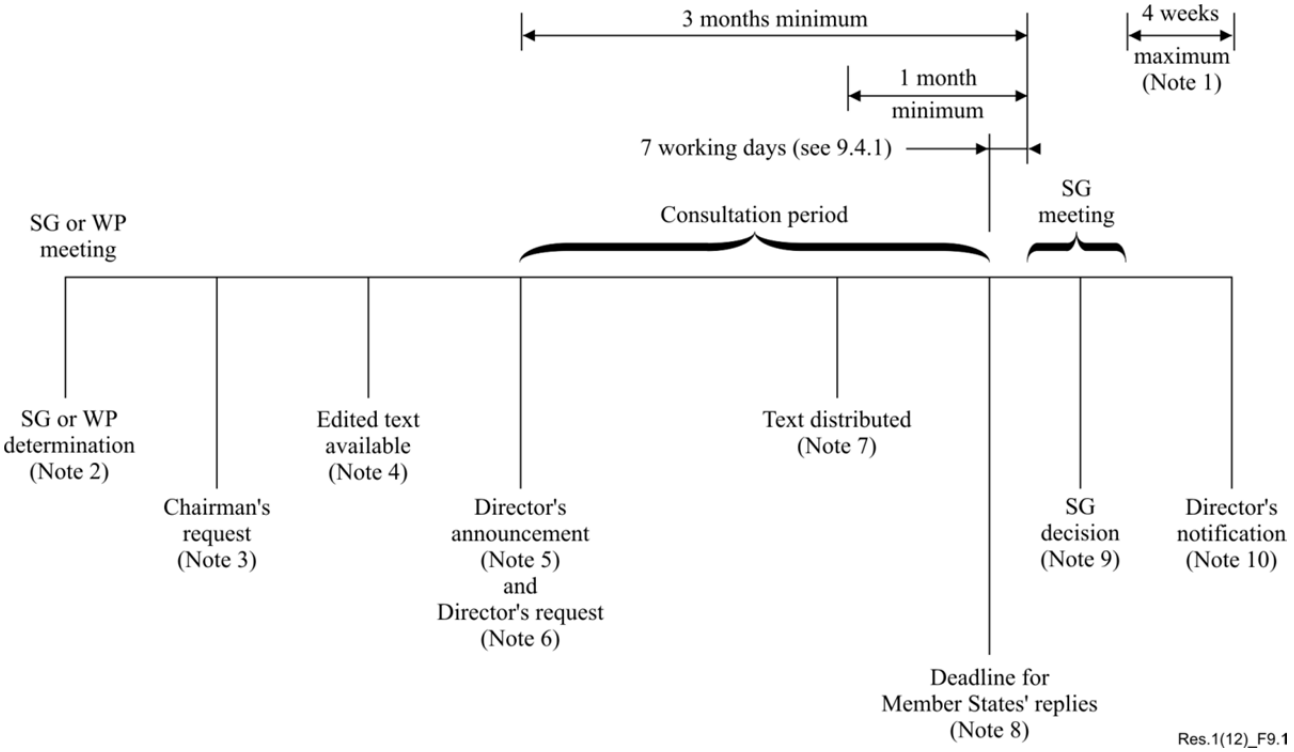
9.8.2 Deletion of Recommendations between WTSAs

9.8.2.1 At a study group meeting it may be agreed to delete a Recommendation, either because it has been superseded by another Recommendation or because it has become obsolete. This agreement must be unopposed. Information about this agreement, including an explanatory summary about the reasons for the deletion, shall be provided by a circular. If no objection to the deletion is received within three months, the deletion will come into force. In the case of objection, the matter will be referred back to the study group.

9.8.2.2 Notification of the result shall be included in another circular, and TSAG shall be informed by a report from the Director. In addition, the Director shall publish a list of deleted Recommendations whenever appropriate, but at least once by the middle of a study period.

FIGURE 9.1

Approval of new and revised Recommendations using TAP – Sequence of events



NOTE 1 – Exceptionally, an additional period of up to four weeks would be added if a delegation requested more time under 9.5.5.

NOTE 2 – SG or WP DETERMINATION: The study group or working party determines that work on a draft Recommendation is sufficiently mature and requests the SG chairman to make the request to the Director (9.3.1).

NOTE 3 – CHAIRMAN'S REQUEST: The SG chairman requests that the Director announce the intention to seek approval (9.3.1).

NOTE 4 – EDITED TEXT AVAILABLE: Text of the draft Recommendation, including the required summary, must be available to TSB in final edited form in at least one official language (9.3.3). Any associated electronic material included in the Recommendation must also be made available to TSB at the same time.

NOTE 5 – DIRECTOR'S ANNOUNCEMENT: The Director announces the intention to seek approval of the draft Recommendation at the next SG meeting. The invitation to the meeting with the announcement of the intention to apply the approval procedure should be sent to all Member States and Sector Members so as to be received at least three months before the meeting (9.3.1 and 9.3.3).

NOTE 6 – DIRECTOR'S REQUEST: The Director requests Member States to inform the Director whether they approve or do not approve the proposal (9.4.1 and 9.4.2). This request shall contain the summary and reference to the complete final text.

NOTE 7 – TEXT DISTRIBUTED: Text of the draft Recommendation must have been distributed in the official languages at least one month before the announced meeting (9.3.5).

NOTE 8 – DEADLINE FOR MEMBER STATES' REPLIES: If 70% of replies received during the consultation period indicate approval, the proposal shall be accepted (9.4.1, 9.4.5 and 9.4.7).

NOTE 9 – STUDY GROUP DECISION: After debate, the study group reaches unopposed agreement to apply the approval procedure (9.5.3 and 9.5.2). A delegation can register a degree of reservation (9.5.4), can request more time to consider its position (9.5.5) or can abstain from the decision (9.5.6).

NOTE 10 – DIRECTOR'S NOTIFICATION: The Director notifies whether the draft Recommendation is approved or not (9.6.1).

APPENDIX I
(to Resolution 1)

Information for submission of a Question

- Source
- Short title
- Type of Question or proposal[6]
- Reasons or experience motivating the proposed Question or proposal
- Draft text of Question or proposal
- Specific task objective(s) with expected time-frames for completion
- Relationship of this study activity to other:
  - Recommendations
  - Questions
  - study groups
  - relevant standardization bodies

Guidelines for drafting Question text are available on the ITU-T website.

APPENDIX II
(to Resolution 1)

Suggested text of the note to be included in the circular

TSB has received a statement(s) indicating that the use of intellectual property, protected by one or more issued or pending patent(s) and/or software copyright(s), may be required to implement this draft Recommendation. Available patent and software copyright information can be accessed via the ITU-T website.

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6 Background Question, task-oriented Question designed to lead to a Recommendation, proposal for a new manual, revised manual, etc.

RESOLUTION 2 (Rev. Dubai, 2012)

ITU Telecommunication Standardization Sector study group responsibility and mandates

(Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; 2009[1]; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

the resolutions adopted by this assembly, which contain many instructions and implications for the work of the relevant study groups,

considering

a) that the mandate for each study group needs to be clearly defined in order to avoid duplication of effort between study groups and to ensure the coherence of the overall work programme of the ITU Telecommunication Standardization Sector (ITU-T);

b) that ITU-T has to evolve in order to stay relevant to the changing telecommunication environment and to its membership interests;

c) that collocation of study group, working party or rapporteur group meetings could also be a means to avoid duplication of work and to improve efficiency of work; in practice, collocation enables:

– attendees' participation in the work of more than one study group;

– reduction in the need for exchange of liaison statements between the study groups concerned;

– saving costs for ITU and for ITU members and other experts;

d) that the World Telecommunication Standardization Assembly (WTSA), through Resolution 22, assigns authority to the Telecommunication Standardization Advisory Group (TSAG) in the interval between WTSAs to restructure and establish ITU-T study groups in response to changes in the telecommunication marketplace,

noting

that the study group structure, responsibilities and mandates agreed at WTSA may be modified in the interval between WTSAs, and that the current study group structure, responsibility and mandates may be found on the ITU-T website or obtained from the Telecommunication Standardization Bureau (TSB),

resolves

1 that the mandate of each study group, which it shall use as the basis for organizing its study programme, shall consist of:

– a general area of responsibility, as set out in Annex A, within which the study group may amend existing Recommendations, in collaboration with other groups, as appropriate;

[1] Changes to the ITU-T Study Group 5 mandate agreed by TSAG on 30 April 2009.

– a set of Questions related to particular areas of study, which are compatible with the general area of responsibility and which should be results-oriented (refer to Section 7 of Resolution 1 (Rev. Dubai, 2012) of this assembly);

2 to encourage the study groups to consider collocation (e.g. of study group plenaries, working parties or rapporteur meetings) as a means to improve cooperation in some areas of work; the study groups involved will need to identify the areas in which they need to cooperate, based on their mandates, and keep TSAG and TSB informed,

instructs the Telecommunication Standardization Bureau

to support and facilitate the operational aspects of such collocation.

ANNEX A
(to Resolution 2)

PART 1 – GENERAL AREAS OF STUDY

ITU-T Study Group 2

Operational aspects of service provision and telecommunication management

ITU-T Study Group 2 is responsible for studies relating to:

- principles of service provision, definition and operational requirements of service emulation;
- numbering, naming, addressing and identification requirements and resource assignment, including criteria and procedures for reservation, assignment and reclamation;
- routing and interworking requirements;
- human factors;
- operational and management aspects of networks, including network traffic management, designations and transport-related operations procedures;
- operational aspects of interworking between traditional telecommunication networks and evolving networks;
- evaluation of feedback from operators, manufacturing companies and users on different aspects of network operation;
- management of telecommunication services, networks and equipment via management systems, including support for next-generation networks (NGN) and the application and evolution of the telecommunication management network (TMN) framework;
- ensuring the consistency of the format and structure of IdM identifiers; and
- specifying interfaces to management systems to support the communication of identity information within or between organizational domains.

ITU-T Study Group 3

Tariff and accounting principles including related telecommunication economic and policy issues

ITU-T Study Group 3 is responsible, *inter alia*, for studies relating to tariff and accounting matters (including costing methodologies) for international telecommunication services and the study of related telecommunication economic, accounting and policy issues. To this end, Study Group 3 shall in particular foster collaboration among its participants with a view to the establishment of rates at levels as low as possible consistent with an efficient service and taking into account the necessity for maintaining independent financial administration of telecommunications on a sound basis.

ITU-T Study Group 5

Environment and climate change

ITU-T Study Group 5 is responsible for studying ICT environmental aspects of electromagnetic phenomena and climate change.

It is responsible for studies relating to protection of telecommunication networks and equipment from interference and lightning.

Study Group 5 is also responsible for studies related to electromagnetic compatibility (EMC), to safety and to health effects connected with electromagnetic fields produced by telecommunication installations and devices, including cellular phones.

It is responsible for studies on the existing copper network outside plant and related indoor installations.

It is responsible for studies on methodologies for assessing the environmental impact of ICT, publishing guidelines for using ICTs in an eco-friendly way, tackling e-waste issues, and energy efficiency of the power feeding system.

It is responsible for studies on how to use ICT to help countries and the ICT sector adapt to the effects of environmental challenges, including climate change.

Study Group 5 also identifies the needs for more consistent and standardized eco-friendly practices for the ICT sector (e.g. labelling, procurement practices, eco-rating schemes for mobile phones).

ITU-T Study Group 9

Television and sound transmission and integrated broadband cable networks

ITU-T Study Group 9 is responsible for studies relating to:

- use of telecommunication systems for contribution, primary distribution and secondary distribution of television, sound programmes and related data services including interactive services and applications, extendable to advanced capabilities such as ultra-high definition television, 3D television, etc.;

- use of cable and hybrid networks, primarily designed for television and sound programme delivery to the home, as integrated broadband networks to also carry voice or other time-critical services, video-on-demand, interactive services, etc. to customer premises equipment (CPE) in the home or enterprise.

ITU-T Study Group 11

Signalling requirements, protocols and test specifications

ITU-T Study Group 11 is responsible for studies relating to signalling requirements and protocols, including those for IP-based network technologies, next-generation networks (NGN), machine-to-machine (M2M) communication, Internet of things (IoT), future networks (FN), cloud computing, mobility, some multimedia-related signalling aspects, ad hoc networks (sensor networks, radio-frequency identification (RFID), etc.), quality of service (QoS), and inter-network signalling for legacy networks (e.g. ATM, N-ISDN and PSTN). In addition, it is responsible for studies relating to reference signalling architectures and test specifications for NGN and emerging network technologies (e.g. IoT, etc.).

ITU-T Study Group 12

Performance, quality of service and quality of experience

ITU-T Study Group 12 is responsible for Recommendations on performance, quality of service (QoS) and quality of experience (QoE) for the full spectrum of terminals, networks and services, ranging from speech over fixed circuit-based networks to multimedia applications over networks that are mobile and packet based. Included in this scope are the operational aspects of performance, QoS and QoE; the end-to-end quality aspects of interoperability; and the development of multimedia quality assessment methodologies, both subjective and objective.

ITU-T Study Group 13

Future networks, including cloud-computing, mobile and next-generation networks

ITU-T Study Group 13 is responsible for studies relating to the requirements, architectures, capabilities and mechanisms of future networks (FN), including studies relating to service awareness, data awareness, environmental awareness and socio-economic awareness with respect to FN. It is responsible for studies relating to cloud-computing technologies such as virtualization, resource management, reliability and security. It is responsible for studies relating to network aspects of Internet of things (IoT) and network aspects of mobile telecommunication networks, including International Mobile Telecommunications (IMT) and IMT-Advanced, wireless Internet, mobility management, mobile multimedia network functions, internetworking and enhancements to existing ITU-T Recommendations on IMT. Study Group 13 is also responsible for studies relating to next-generation network (NGN)/Internet Protocol television (IPTV) enhancements, including requirements, capabilities, architectures and implementation scenarios, deployment models, and coordination across study groups.

ITU-T Study Group 15

Networks, technologies and infrastructures for transport, access and home

ITU-T Study Group 15 is responsible for the development of standards on optical transport network, access network, home network and power utility network infrastructures, systems, equipment, optical fibres and cables, and their related installation, maintenance, management, test, instrumentation and measurement techniques, and control plane technologies to enable the evolution toward intelligent transport networks, including the support of smart-grid applications. This encompasses the development of related standards for the customer premises, access, metropolitan and long-haul sections of communication networks, as well as for power utility networks and infrastructures from transmission to load.

ITU-T Study Group 16

Multimedia coding, systems and applications

ITU-T Study Group 16 is responsible for studies relating to ubiquitous applications, multimedia capabilities for services and applications for existing and future networks, including next-generation networks (NGN) and beyond. This encompasses accessibility, multimedia architectures, terminals, protocols, signal processing, media coding and systems (e.g. network signal processing equipment, multipoint conference units, gateways and gatekeepers).

ITU-T Study Group 17

Security

ITU-T Study Group 17 is responsible for building confidence and security in the use of information and communication technologies (ICT). This includes studies relating to cybersecurity, security management, countering spam and identity management. It also includes security architecture and framework, protection of personally identifiable information, and security of applications and services for the Internet of things, smart grid, smartphone, Internet Protocol television (IPTV), web services, social network, cloud computing, mobile financial system and telebiometrics. Study Group 17 is also responsible for the application of open system communications, including directory and object identifiers, and for technical languages, the method for their usage and other issues related to the software aspects of telecommunication systems, and for conformance testing to improve the quality of Recommendations.

PART 2 – LEAD ITU-T STUDY GROUPS IN SPECIFIC AREAS OF STUDY

SG2	Lead study group for service definition, numbering and routing Lead study group on telecommunications for disaster relief/early warning, network resilience and recovery Lead study group on telecommunication management
SG5	Lead study group on electromagnetic compatibility and electromagnetic effects Lead study group on ICTs and climate change

SG9 Lead study group on integrated broadband cable and television networks

SG11 Lead study group on signalling and protocols
Lead study group on machine-to-machine (M2M) signalling and protocol
Lead study group on test specifications, conformance and interoperability testing

SG12 Lead study group on quality of service and quality of experience
Lead study group on driver distraction and voice aspects of car communications

SG13 Lead study group on future networks (FN)
Lead study group on mobility management and next-generation networks (NGN)
Lead study group on cloud computing

SG15 Lead study group on access network transport
Lead study group on optical technology
Lead study group on optical transport networks
Lead study group on smart grid

SG16 Lead study group on multimedia coding, systems and applications
Lead study group on ubiquitous and Internet of things (IoT) applications
Lead study group on telecommunication/ICT accessibility for persons with disabilities
Lead study group on intelligent transport system (ITS) communications
Lead study group on Internet Protocol television (IPTV)

SG17 Lead study group on security
Lead study group on identity management (IdM)
Lead study group on languages and description techniques

ANNEX B
(to Resolution 2)

Points of guidance to ITU-T study groups for development of the post-2012 work programme

B.1 This annex provides points of guidance to study groups for the development of post-2012 study Questions in accordance with their proposed structure and general areas of responsibility. The points of guidance are intended to clarify, where appropriate, interaction between study groups in certain areas of common responsibility, and are not intended to provide a comprehensive list of such responsibilities.

B.2 This annex will be reviewed by TSAG as necessary to facilitate interaction between study groups, to minimize duplication of effort and to harmonize the overall ITU-T work programme.

ITU-T Study Group 2

ITU-T Study Group 2 is the lead study group for service definition (including all types of mobile services) and for numbering and routing. It is responsible for creating principles of service and operational requirements, including billing and operational quality of service/network performance. Service principles and operational requirements must be developed for current and evolving technologies.

Study Group 2 is to define and describe services from a user's point of view to facilitate global interconnection and interoperation and, to the extent practicable, ensure compatibility with the International Telecommunication Regulations and related intergovernmental agreements.

Study Group 2 should continue to study service policy aspects, including those that may arise in the operation and provision of transborder, global and/or regional services, taking due account of national sovereignty.

Study Group 2 is responsible for studying, developing and recommending general principles of numbering and routing for all types of network.

The chairman of Study Group 2 (or, if necessary, the chairman's delegated representative), in consultation with Study Group 2 participants, should provide technical advice to the Director of TSB concerning general principles for numbering and routing and the effect on allocation of international codes.

Study Group 2 should provide the Director of TSB with advice on technical, functional and operational aspects in the assignment, reassignment and/or reclamation of international numbering and addressing resources in accordance with the relevant ITU-T E- and F-series Recommendations, taking into account the results of any ongoing studies.

Study Group 2 should recommend measures to be taken to assure operational performance of all networks (including network management) in order to meet the in-service network performance and quality of service.

As the lead study group on telecommunication management, Study Group 2 is also responsible for the development and maintenance of a consistent ITU-T work plan, prepared with the cooperation of relevant ITU-T study groups, on activities associated with telecommunication management and with operations, administration and management (OAM). In particular, this work plan will focus on activities involving two types of interfaces:

- for fault, configuration, accounting, performance and security management (FCAPS) interfaces between network elements and management systems, and between management systems; and
- for transmission interfaces between network elements.

In support of market-acceptable FCAPS interface solutions, Study Group 2 studies will identify service provider and network operator requirements and priorities for telecommunication management, continue the evolution of the telecommunication management framework currently based on telecommunication management network (TMN) and next-generation network (NGN) concepts, and address the management of NGN as well as the mixed circuit-switched and packet-switched network environment present during the transition to NGN.

Study Group 2 FCAPS interface solutions will specify reusable management information definitions via protocol-neutral techniques, continue management information modelling for the major telecommunication technologies, such as optical and IP-based networking, and extend management technology choices consistent with market needs, industry recognized value, and major, emerging technical directions.

To support the generation of such interface solutions, Study Group 2 will strengthen the collaborative relationships with standards development organizations (SDOs), forums, consortia and other experts as appropriate.

Additional studies will also cover network and service operational requirements and procedures, including support for network traffic management, support for the Service and Network Operations (SNO) group, and designations for interconnections among network operators.

Study Group 2 will hold meetings back-to-back with those of Study Group 3.

ITU-T Study Group 3

All study groups shall notify ITU-T Study Group 3 at the earliest opportunity of any development that may have an impact on tariff and accounting principles, including the related telecommunication economic and policy issues.

Study Group 3 will hold meetings back-to-back with those of Study Group 2.

ITU-T Study Group 5

ITU-T Study Group 5 will develop Recommendations, handbooks and other publications related to:

- protection of telecommunication networks and equipment from interference and lightning;
- electromagnetic compatibility (EMC); and
- safety and health effects connected with electromagnetic fields produced by telecommunication installations and devices.

Study Group 5 will also develop documents related to:

- study of methodologies for assessing the environmental impact of ICT, both in terms of its own emissions and the savings created through ICT applications in other industry sectors;
- creation of a framework for energy efficiency in the ICT field, taking account of WTSA Resolution 73 (Rev. Dubai, 2012);
- study of methodologies for power feeding that effectively reduce power consumption and resource usage;
- study of methodologies, such as recycling, that reduce environmental effects of ICT facilities and equipment;
- studies on how to use ICT to help countries and the ICT sector adapt to the effects of environmental challenges, including climate change.

Study Group 5 will also take care of the aspects related to the deployment of new services on existing copper networks, such as the co-existence of different services from different providers in the same cable and the positioning of components (e.g. xDSL filters) inside the central office main distribution frame, including also the need to provide performance requirements of new copper-pair cables designed to support a higher bandwidth.

This activity is strictly related to the continuation of studies on the local loop unbundling (LLU), with the scope to provide all the correct technical solutions needed to assure network integrity and interoperability, the easy use of equipment and access security in a context where operators can interact without affecting the quality of service defined by regulatory and administrative issues.

The meetings of Study Group 5 and its working parties/Questions should as far as practicable be collocated with other study groups/working parties/Questions involved in study of environment and climate change.

ITU-T Study Group 9

Within its general area of responsibility, ITU-T Study Group 9 will develop and maintain Recommendations on:

- the use of IP or other appropriate protocols and middleware to provide time-critical services, services on demand or interactive services over cable or hybrid networks, in cooperation with other study groups where necessary;
- procedures for the operation of television and sound-programme networks;
- television and sound-programme systems for contribution and distribution networks;
- transmission systems for television, sound programmes and interactive services, including Internet applications on networks intended primarily for television;
- the delivery of broadband audiovisual services over home networks.

Study Group 9 is responsible for coordination with ITU-R on broadcasting matters.

When meeting in Geneva, Study Group 9 will hold collocated meetings with Study Group 16, except when Study Group 9 holds collocated meetings with Study Group 12.The work of Study Group 9 on quality assessment will be coordinated with Study Group 12.

Joint rapporteur group activities of different study groups (under a global standards initiative (GSI) or other arrangements) shall be seen as complying with the WTSA expectations for collocation.

ITU-T Study Group 11

ITU-T Study Group 11 is responsible for studies relating to signalling requirements and protocols, including those for IP-based network technologies, next-generation networks (NGN), machine-to-machine (M2M) communication, Internet of things (IoT), future networks (FN), cloud computing, mobility, some multimedia-related signalling aspects, ad hoc networks (sensor networks, radio-frequency identification (RFID), etc.), quality of service (QoS), and inter-network signalling for legacy networks (e.g. ATM, N-ISDN and PSTN). In addition, it is responsible for studies relating to reference signalling architectures and test specifications for NGN and emerging network technologies (e.g. IoT, etc.).

In addition, Study Group 11 will develop Recommendations on the following subjects:

- network signalling and control functional architectures in emerging telecommunication environments (e.g. M2M, IoT, FN, cloud computing, etc.);

- application control and signalling requirements and protocols;
- session control and signalling requirements and protocols;
- bearer control and signalling requirements and protocols;
- resource control and signalling requirements and protocols;
- signalling and control requirements and protocols to support attachment in emerging telecommunication environments;
- reference signalling architectures;
- test specifications for emerging network technologies to assure interoperability;
- conformance, interoperability testing and service and network measurement benchmarking.

Study Group 11 is to lend assistance in the preparation of a handbook on the deployment of packet-based networks.

Study Group 11 is to reuse, where appropriate, protocols that are being developed by other SDOs, in order to maximize standards investments.

The development of requirements and protocols will be as follows:

- Study and develop signalling requirements.
- Study existing protocols to determine if they meet the requirements, and work with the relevant organizations for necessary enhancements or extensions.
- Develop protocols to meet requirements beyond the capabilities of existing protocols.
- Develop protocols to meet the requirements of new services and technologies.
- Develop protocol profiles for existing protocols.
- Develop specifications for interworking between any new signalling protocols and existing ones.

Study Group 11 is to work on enhancements to existing Recommendations on access and inter-network signalling protocols of BICC, ATM, N-ISDN and PSTN, i.e. Signalling System No. 7, DSS1 and DSS2, etc. The objective is to satisfy business needs of member organizations that wish to offer new features and services on top of networks based on existing Recommendations.

When meeting in Geneva, Study Group 11 will hold collocated meetings with Study Group 13.

Joint rapporteur group activities of different study groups (under a global standards initiative (GSI) or other arrangements) shall be seen as complying with the WTSA expectations for collocation.

ITU-T Study Group 12

A particular focus of ITU-T Study Group 12 is on the end-to-end quality (as perceived by the customer) delivered using a path that, with increasing frequency, involves complex interactions between terminals and network technologies (e.g. mobile terminals, multiplexers, gateway and network signal processing equipment, and IP-based networks).

As the lead study group for quality of service (QoS) and quality of experience (QoE), Study Group 12 coordinates QoS and QoE activities not only within ITU-T, but also with other SDOs and forums, and develops frameworks to improve collaboration.

Study Group 12 is the parent group for the Quality of Service Development Group (QSDG); and the Regional Group of Study Group 12 on QoS for the Africa region (SG12 RG-AFR).

Examples of the work Study Group 12 plans to undertake:

- end-to-end QoS planning, focusing on all-packet networks, but also considering hybrid IP/digital circuit-based paths;
- QoS operational aspects and related interworking guidance and resource management to support QoS;
- technology-specific (e.g. IP, Ethernet, MPLS) performance guidance;
- application-specific (e.g. smart grid, IoT, M2M, HN) performance guidance;
- definition of QoE requirements and performance targets, and associated evaluation methodologies, for multimedia services;
- subjective quality assessment methodologies for new technologies (e.g. telepresence);
- quality modelling (psychophysical models, parametric models, intrusive and non-intrusive methods, opinion models) for multimedia and speech (including wideband, superwideband and fullband);
- speech quality in motor vehicle environments, and aspects of driver distraction;
- speech terminal characteristics and electro-acoustic measurement methods (including wideband, superwideband and fullband).

The work of Study Group 9 on quality assessment will be coordinated with Study Group 12.

ITU-T Study Group 13

The key areas of competence of ITU-T Study Group 13 include:

- Future network (FN) aspects: Study of requirements, functional architectures and their capabilities, mechanisms and deployment models of FN, taking into account service awareness, data awareness, environmental awareness and socio-economic awareness. This study includes the development of relevant technologies such as virtualization, software-defined networking, reliability, quality of service (QoS) and security.
- Cloud-computing aspects: Study of the requirements, functional architectures and their capabilities, mechanisms and deployment models of cloud computing, covering inter- and intra-cloud computing. This study includes the development of technologies supporting "XaaS (X as a service)" such as virtualization, resource and service management, reliability and security.
- Mobile aspects: Studies relating to network aspects of mobile telecommunication networks, including International Mobile Telecommunications (IMT) and IMT-Advanced, wireless Internet, mobility management, mobile multimedia functions, internetworking, interoperability and

enhancements to existing ITU-T Recommendations on IMT. This study will incorporate harmonization with relevant standards that are developed in mobile-related standards development organizations.

- Next-generation network (NGN) evolution aspects: Based on emerging services/applications and related use cases, study of enhancements to NGN in terms of requirements for supporting capabilities, functional architecture and deployment models.

- Internet of things (IoT) aspects: Studies relating to network aspects of IoT. This will include studies to support IoT using various networks such as FN, mobile networks and NGN. This study will incorporate cloud computing in support of IoT.

- Content distribution network aspects: Study of the requirements, functions and mechanisms to support the distribution of content requested by end users. This will include capabilities to support content discovery/metadata, and content distribution. This study will incorporate broadcasting and other technologies of FN, including cloud-computing and mobile communication networks as well as NGN.

- Ad hoc network aspects: Study of the requirements, functions and mechanisms needed to support configuration of ad hoc networks used for identifying service discovery and activation, and context description/distribution, including peer-to-peer networking.

- Common functional aspects: Study of functions and relevant capabilities applicable to FN, including an identity and access management approach that supports value-added identity services, the secure exchange of identity information and the application of bridging/interoperability between a diverse set of identity information formats. Also to be studied are any identity management threats within the future networks and the mechanisms to counter them. In addition, Study Group 13 will study the protection of personally identifiable information (PII) in FN to ensure that only authorized PII is disseminated within FN.

This study will also cover regulatory implications, including telecommunications for disaster relief, emergency communications and lower energy consumption networks.

In order to assist countries with economies in transition, developing countries and especially the least developed countries in the application of IMT and related wireless technologies, consultations should be held with representatives of the ITU Telecommunication Development Sector with a view to identifying how this might best be done through an appropriate activity conducted in conjunction with ITU-D.

Study Group 13 shall maintain strong cooperative relations with external standards-development organizations (SDOs) and 3GPPs and develop a complementary programme. It shall proactively promote communications with external organizations to allow for normative referencing in ITU-T Recommendations of mobile-network specifications developed by those organizations.

When meeting in Geneva, Study Group 13 will hold collocated meetings with Study Group 11.

Joint rapporteur group activities of different study groups (under a global standards initiative (GSI) or other arrangements) shall be seen as complying with the WTSA expectations for collocation.

ITU-T Study Group 15

ITU-T Study Group 15 is the focal point in ITU-T for the development of standards on optical transport network and access network infrastructures, home networking, smart-grid transceiver technology, systems, equipment, optical fibres and cables, and their related installation, maintenance, test, instrumentation and measurement techniques, and control plane technologies to enable the evolution toward intelligent transport networks. This encompasses the development of related standards for the customer premises, access, metropolitan and long-haul sections of communication networks.

Within this framework, the study group will also handle the reliability and security aspects of the entire range of fibre and cable performance, field deployment and the integrity of installations. The activity on the construction of infrastructure will perform the investigation and standardization of new techniques to allow faster, more cost-effective and safer cable installation, also taking into account social issues such as the reduction of excavation, the problems caused to traffic and the generation of noise. Maintenance and physical infrastructure management will be also addressed, taking into account the advantages of emerging technologies, such as RFID and ubiquitous sensor networks.

Particular emphasis is given to global standards providing for a high-capacity (terabit) optical transport network (OTN) infrastructure, and for high-speed (multi-Mbit/s and Gbit/s) network access and home networking. This also includes related work on modelling for network, system and equipment management, transport network architectures and layer interworking. Special consideration is being given to the changing telecommunication environment towards IP-type networks as part of the evolving next-generation network (NGN).

Access network technologies addressed by the study group include passive optical network (PON), point-to-point optical, and copper-based digital subscriber line technologies, including ADSL, VDSL, HDSL and SHDSL. Home networking technologies include wired broadband, wired narrowband and wireless narrowband. Both access and home networking for smart-grid applications are supported.

Network, system and equipment features covered include routing, switching, interfaces, multiplexers, cross-connect, add/drop multiplexers, amplifiers, transceivers, repeaters, regenerators, multilayer network protection switching and restoration, operations, administration and maintenance (OAM), network synchronization, transport equipment management and control plane capabilities to enable evolution toward intelligent transport networks (e.g. automatically switched optical networks (ASON)). Many of these topics are addressed for various transport media and technologies, such as metallic and terrestrial/submarine optical fibre cables, dense and coarse wavelength division multiplexing (DWDM and CWDM) optical systems, OTN, Ethernet and other packet-based data services, synchronous digital hierarchy (SDH), asynchronous transfer mode (ATM) and plesiochronous digital hierarchy (PDH).

In its work, Study Group 15 will take into account related activities in other ITU study groups, standards-development organizations (SDOs), forums and consortia, and collaborate with them to avoid duplication of effort and identify any gaps in the development of global standards.

ITU-T Study Group 16

ITU-T Study Group 16 will work on the following items:

- development of a framework and roadmaps for the harmonized and coordinated development of multimedia telecommunication standardization over wired and wireless networks to provide guidance across all ITU-T and ITU-R study groups (in particular ITU-T Study Group 9 and ITU-R Study Group 6), and in close cooperation with other regional and international standards-development organizations (SDO) and industry forums; these studies will include mobility, IP and interactive broadcasting aspects; close cooperation between ITU-T and ITU-R is encouraged at all levels;

- development and maintenance of a database of existing and planned multimedia standards;

- development of multimedia end-to-end architectures, including home network environments (HNE) and vehicle gateway for intelligent transport system (ITS);

- operation of multimedia systems and applications, including interoperability, scalability and interworking over different networks;

- high-layer protocols and middleware for multimedia systems and applications, including Internet Protocol television (IPTV), ubiquitous sensor network (USN) and ID-triggered multimedia/multimode applications and services for next-generation networks (NGN) and beyond;

- media coding and signal processing;

- multimedia and multimode terminals;

- signal processing network equipment and terminals, gateway implementations, and characteristics;

- quality of service (QoS) and end-to-end performance in multimedia systems;

- security of multimedia systems and services;

- accessibility to multimedia systems and services for persons with disabilities;

- ubiquitous and Internet of things (IoT) applications;

- studies on appropriate character sets, especially for non-Latin scripts and languages.

When meeting in Geneva, Study Group 16 will hold collocated meetings with Study Group 9, except when Study Group 9 holds collocated meetings with Study Group 12.

Joint rapporteur group activities of different study groups (under a global standards initiative (GSI) or other arrangements) shall be seen as complying with the WTSA expectations for collocation.

ITU-T Study Group 17

ITU-T Study Group 17 is responsible for building confidence and security in the use of information and communication technologies (ICT). This includes studies relating to security, including cybersecurity, countering spam and identity management. It also includes security architecture and framework, security management, protection of personally identifiable information (PII), and security of applications and services for the Internet of things (IoT), smart grid, smartphone, Internet Protocol television (IPTV), web services, social network, cloud computing, mobile financial system and telebiometrics. Study Group 17 is also responsible for the application of open system communications, including directory and object identifiers, and for technical languages, the method for their usage and other issues related to the software aspects of telecommunication systems, and for conformance testing to improve quality of Recommendations.

In the area of security, Study Group 17 is responsible for developing the core Recommendations on ICT security, such as security architecture and frameworks; the fundamentals related to cybersecurity, including threats, vulnerabilities and risks, incident handling/response and digital forensics; security management, including management of PII; countering spam by technical means. In addition, Study Group 17 provides overall coordination of security work in ITU-T.

In addition, Study Group 17 is responsible for developing the core Recommendations on security aspects of applications and services in the areas of IPTV, smart grid, IoT, social network, cloud computing, smartphone, mobile financial system and telebiometrics.

Study Group 17 is also responsible for developing the core Recommendations on a generic identity management model that is independent of network technologies and supports the secure exchange of identity information between entities. This work also includes studying the process for discovery of authoritative sources of identity information; generic mechanisms for the bridging/interoperability of a diverse set of identity information formats; identity management threats, the mechanisms to counter them, the protection of PII and the development of mechanisms to ensure that access to PII is only authorized when appropriate.

In the area of open system communication, Study Group 17 is responsible for Recommendations in the following areas:

- directory services and systems, including public key infrastructure (PKI) (ITU-T F.500- and ITU-T X.500-series);
- object identifiers (OIDs) and associated registration authorities (ITU-T X.660/ITU-T X.670-series);
- open systems interconnection (OSI), including Abstract Syntax Notation One (ASN.1) (ITU-T F.400-, ITU-T X.200-, ITU-T X.400-, ITU-T X.600-, ITU-T X.800-series); and
- open distributed processing (ODP) (ITU-T X.900-series).

In the area of languages, Study Group 17 is responsible for studies on modelling, specification and description techniques. This work, which includes languages such as ASN.1, SDL, MSC and URN, will be developed in line with the requirements of and in cooperation with the relevant study groups such as Study Group 2, Study Group 9, Study Group 11, Study Group 13, Study Group 15 and Study Group 16.

ANNEX C
(to Resolution 2)

List of Recommendations under the responsibility of the respective ITU-T study groups and TSAG in the 2013-2016 study period

ITU-T Study Group 2

ITU-T E-series, except those in conjunction with Study Group 17 or under the responsibility of Study Group 12

ITU-T F-series, except those under the responsibility of Study Groups 13, 16 and 17

Recommendations of the ITU-T I.220-, ITU-T I.230-, ITU-T I.240-, ITU-T I.250-series and ITU-T I.750-series

ITU-T G.850-series

ITU-T M-series

ITU-T O.220-series

ITU-T Q.513, ITU-T Q.800 – ITU-T Q.849, ITU-T Q.940-series

Maintenance of the ITU-T S-series

ITU-T V.51/ITU-T M.729

ITU-T X.160-, ITU-T X.170-, ITU-T X.700-series

ITU-T Z.300-series

ITU-T Study Group 3

ITU-T D-series

ITU-T Study Group 5

ITU-T K-series

ITU-T L.1 – ITU-T L.9, ITU-T L.18 – ITU-T L.24, ITU-T L.32, ITU-T L.33, ITU-T L.71, ITU-T L.75, ITU-T L.76, ITU-T L.1000-series

ITU-T Study Group 9

ITU-T J-series

ITU-T N-series

ITU-T P.900-series

ITU-T Study Group 11

ITU-T Q-series, except those under the responsibility of Study Groups 2, 13, 15 and 16

Maintenance of the ITU-T U-series

ITU-T X.600 – ITU-T X.609

ITU-T Z.160 – ITU-T Z.170-series

ITU-T Study Group 12

ITU-T E.420 – ITU-T E.479, ITU-T E.800 – ITU-T E.859

ITU-T G.100-series, except ITU-T G.160-, ITU-T G.180- and ITU-T G.190-series

ITU-T G.1000-series

ITU-T I.350-series (including ITU-T Y.1501/ITU-T G.820/ITU-T I.351), ITU-T I.371, ITU-T I.378, ITU-T I.381

ITU-T P-series, except ITU-T P.900-series

ITU-T Y.1220-, ITU-T Y.1530-, ITU-T Y.1540-, ITU-T Y.1560-series

ITU-T Study Group 13

ITU-T F.600-series

ITU-T G.801, ITU-T G.802, ITU-T G.860-series

ITU-T I-series, except those under the responsibility of Study Groups 2, 12 and 15, and those having double/triple numbering in other series

ITU-T Q.933, ITU-T Q.933*bis*, ITU-T Q.10xx-series and ITU-T Q.1700-series

ITU-T X.1 – ITU-T X.25, ITU-T X.28 – ITU-T X.49, ITU-T X.60 – ITU-T X.84, ITU-T X.90 – ITU-T X.159, ITU-T X.180 – ITU-T X.199, ITU-T X.272, ITU-T X.300-series

ITU-T Y-series, except those under the responsibility of Study Groups 12, 15 and 16

ITU-T Study Group 15

ITU-T G-series, except those under the responsibility of Study Groups 2, 12, 13 and 16

ITU-T I.326, ITU-T I.414, ITU-T I.430-series, ITU-T I.600-series and ITU-T I.700-series, except ITU-T I.750-series

ITU-T L-series, except those under the responsibility of Study Group 5

ITU-T O-series (including ITU-T O.41/ITU-T P.53), except those under the responsibility of Study Group 2

ITU-T Q.49/ITU-T O.22 and ITU-T Q.500-series, except ITU-T Q.513 (see Study Group 2)

Maintenance of the ITU-T R-series

ITU-T X.50-series, ITU-T X.85/ITU-T Y.1321, ITU-T X.86/ITU-T Y.1323, ITU-T X.87/ITU-T Y.1324

ITU-T V.38, ITU-T V.55/ITU-T O.71, ITU-T V.300

ITU-T Y.1300 – ITU-T Y.1309, ITU-T Y.1320 – ITU-T Y.1399, ITU-T Y.1501, and ITU-T Y.1700-series

ITU-T Study Group 16

ITU-T F.700-series

ITU-T G.160-series, ITU-T G.190-series, ITU-T G.710 – ITU-T G.729 (except ITU-T G.712), ITU-T G.760-series (including ITU-T G.769/ITU-T Y.1242), ITU-T G.776.1, ITU-T G.799.1/ITU-T Y.1451.1, ITU-T G.799.2, ITU-T G.799.3

ITU-T H-series

ITU-T T-series

ITU-T Q.50-series, ITU-T Q.115-series

ITU-T V-series, except those under the responsibility of Study Groups 2 and 15

ITU-T X.26/ITU-T V.10 and ITU-T X.27/ITU-T V.11

ITU-T Study Group 17

ITU-T E.104, ITU-T E.115, ITU-T E.409 (in conjunction with Study Group 2)

ITU-T F.400-series; ITU-T F.500 – ITU-T F.549

ITU-T X-series, except those under the responsibility of Study Groups 2, 11, 13, 15, and 16

ITU-T Z-series, except ITU-T Z.160 – ITU-T Z.170 series and ITU-T Z.300-series

TSAG

ITU-T A-series Recommendations

RESOLUTION 7 (Rev. Dubai, 2012)

Collaboration with the International Organization for Standardization and the International Electrotechnical Commission

(Malaga-Torremolinos, 1984; Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the purposes of the Union set forth in Article 1 of the ITU Constitution relating to the harmonization of telecommunication facilities;

b) the duties of the ITU Telecommunication Standardization Sector (ITU-T) as set forth in Chapter III of the Constitution;

c) the interest of both the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) in certain aspects of telecommunications;

d) the common interest of ISO and IEC on the one hand and ITU-T on the other in the development of standards on telecommunication and information technologies, on cables, wires and optical fibres and on protection measures which take full account of the needs of manufacturers, users and those responsible for communication systems;

e) the need for mutual agreements on other areas of standardization activity of common interest, along the lines of cooperation in the field of telecommunication security between ITU-T Study Group 17 and its counterparts in ISO and IEC;

f) the increasing relevance of the ITU conformance and interoperability programme, which has, among other objectives, recalled that ITU-T Recommendations should consider, when applicable, laboratory test procedures able to assess requirements standards confidently,

noting

a) that the working methods and timing constraints of the organizations concerned are not the same;

b) the increasing demands on financial and specialized professional experts in both telecommunication technology and operations as well as computer science and terminal manufacturing and testing;

c) the coordination meeting newly established between the three organizations through their top management;

d) the progress made on the basis of existing procedures in the alignment of technical Recommendations with ISO, IEC and ISO/IEC Joint Technical Committee 1 (JTC 1) in areas of joint interest, thanks to the excellent spirit of cooperation which has prevailed;

e) the principles of collaboration established between ISO and IEC and particularly with ISO/IEC JTC 1 on information technology as contained in Recommendation ITU-T A.23 and in the ISO/IEC JTC 1 Directives;

f) that other standardization activities of a collaborative nature may require coordination;

g) the increasing cost of developing international standards,

resolves

1 to continue inviting ISO and IEC to examine the ITU-T study programme in the early stages of its studies and vice versa, and to further examine such programmes to take into account ongoing changes, in order to identify subjects where coordination seems desirable, and to so advise the Director of the Telecommunication Standardization Bureau (TSB);

2 to request the Director of TSB, after consultation with the study group chairmen concerned, to reply, and to furnish any additional information requested by ISO and IEC, as it becomes available;

3 to request the Director of TSB to examine and update the programme of cooperation and priority of the study items among ITU-T, ISO and IEC and highlight this information on the ITU-T website on a regular basis;

4 to request the Director of TSB, the study groups and the Telecommunication Standardization Advisory Group to consider and propose further improvements to the procedures for cooperation between ITU-T and ISO and IEC, including setting the priorities for such cooperation, such as conformance assessment schemes and laboratory standards;

5 that the necessary contacts with ISO and/or IEC should be at the appropriate levels and coordination methods should be mutually agreed and regular coordination events arranged:

- for work where text should be drawn up mutually and kept aligned, procedures in accordance with Recommendation ITU-T A.23 and the Guidelines for Cooperation therein apply;
- for other activities where coordination between ITU-T and ISO and IEC is required (for example in relation to any mutual agreements, such as the Memorandum of Understanding on standardization in the field of electronic business), clear means of coordination shall be established and regular coordination contacts made;

6 to request the chairmen of study groups to take into account the related work programmes 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:

- ensure that the specifications which have been jointly drawn up remain aligned;
- collaborate in drawing up other specifications in fields of joint interest;

7 that, for reasons of economy, any necessary collaborative meetings take place as far as possible in association with other meetings;

8 that the report concerning such coordination indicate 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;

9 to invite administrations to contribute significantly to the coordination between ITU-T on the one hand and ISO and IEC on the other by ensuring adequate coordination of national activities associated with the three organizations.

RESOLUTION 11 (Rev. Dubai, 2012)

Collaboration with the Postal Operations Council of the Universal Postal Union in the study of services concerning both the postal and the telecommunication sectors

(Malaga-Torremolinos, 1984; Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that within the United Nations system, both the International Telecommunication Union (ITU) and the Universal Postal Union (UPU), as organizations specialized in communications, have been collaborating to identify synergies with a view to achieving the objectives of the World Summit on the Information Society (WSIS), each within its specific sphere of competence;

b) that postal and telecommunication administrations, the relevant operating agencies authorized by Member States and service providers need to keep themselves informed of technical progress liable to improve or harmonize existing services in both the postal and telecommunication sectors;

c) the usefulness of examining jointly the implications of any new Recommendations or modifications to current Recommendations made in this connection,

recognizing

a) the cooperation that has existed between the two organizations in regard, *inter alia,* to the use of new technologies by the postal sector and the fostering of its role in projects on the introduction and sustainable use of high-speed traffic, cybersecurity and currency transfer by mobile telephony;

b) that the changes in postal and telecommunication services in recent years have increased the synergies between the two sectors and consequently the need for greater coordination and joint work between both organizations,

recalling

that, under No. 9 of the ITU Constitution, one of the purposes of the Union is "to promote, at the international level, the adoption of a broader approach to the issues of telecommunications in the global information economy and society, by cooperating with other world and regional intergovernmental organizations and those non-governmental organizations concerned with telecommunications",

observing

that it is necessary to update the topics of interest with a view to developing common activities between both organizations and the efficient use of their resources,

resolves

that the relevant ITU-T study groups should continue to collaborate with the Postal Operations Council (POC) committees as necessary, on a reciprocal basis and with a minimum of formality, in particular by investigating issues of common interest such as quality of service, electronic services and security of mobile payment,

instructs the Director of the Telecommunication Standardization Bureau

to encourage and assist this collaboration between the two organs.

RESOLUTION 18 (Rev. Dubai, 2012)

Principles and procedures for the allocation of work to, and coordination between, the ITU Radiocommunication and ITU Telecommunication Standardization Sectors

(Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the responsibilities of the Radiocommunication Sector (ITU-R) and the Telecommunication Standardization Sector (ITU-T) according to the principles laid down in the ITU Constitution and Convention, i.e.:

- that the ITU-R study groups are charged (Nos. 151 to 154 of the Convention) to focus on the following in the study of Questions assigned to them:
  - i) use of the radio-frequency spectrum in terrestrial and space radiocommunication (and of the geostationary-satellite orbit);
  - ii) characteristics and performance of radio systems;
  - iii) operation of radio stations;
  - iv) radiocommunication aspects of distress and safety matters;
- that the ITU-T study groups are charged (No. 193 of the Convention) to study technical, operating and tariff questions and prepare Recommendations on them with a view to standardizing telecommunications on a worldwide basis, including Recommendations on interconnection of radio systems in public telecommunication networks and on the performance required for these interconnections;

b) that joint meetings of the Radiocommunication (RAG) and Telecommunication Standardization (TSAG) Advisory Groups shall review the distribution of new and existing work between the Sectors, subject to confirmation by the applicable procedures of each Sector, the objective being to:

- minimize the duplication of activities of the Sectors;
- group the standardization activities in order to foster cooperation and coordination of the work of ITU-T with regional standardization bodies,

resolves

1 that TSAG and RAG, meeting jointly as necessary, shall continue the review of new and existing work and its distribution between ITU-T and ITU-R, for approval in accordance with the procedures laid down for the approval of new and/or revised Questions;

2 that, if considerable responsibilities in both Sectors in a particular subject are identified:

i) the procedure as given in Annex A to this resolution should be applied; or

ii) a joint group should be established; or

iii) the matter should be studied by relevant study groups of both Sectors, with appropriate coordination (see Annexes B and C to this resolution).

ANNEX A
(to Resolution 18)

Procedural method of cooperation

With respect to *resolves* 2 i), the following procedure should be applied:

a) The joint meeting, as indicated in *resolves* 1, will nominate the Sector which will lead the work and will finally approve the deliverable.

b) The lead Sector will request the other Sector to indicate those requirements which it considers essential for integration in the deliverable.

c) The lead Sector will base its work on these essential requirements and integrate them in its draft deliverable.

d) During the process of development of the required deliverable the lead Sector shall consult with the other Sector in case it has difficulties with these essential requirements. In case of agreement on revised essential requirements the revised requirements shall be the basis for further work.

e) When the deliverable concerned comes to maturity, the lead Sector shall once more seek the views of the other Sector.

ANNEX B
(to Resolution 18)

Coordination of radiocommunication and standardization activities through intersector coordination groups

With respect to *resolves* 2 iii), the following procedure shall be applied:

a) The joint meeting of the advisory groups as indicated in *resolves* 1, may, in exceptional cases, establish an intersector coordination group (ICG) to coordinate the work of both Sectors and to assist the advisory groups in coordinating the related activity of their respective study groups.

b) The joint meeting shall, at the same time, nominate the Sector which will lead the work.

c) The mandate of each ICG shall be clearly defined by the joint meeting, based on the particular circumstances and issues at the time the group is established; the joint meeting shall also establish a target date for termination of the ICG.

d) The ICG shall designate a chairman and a vice-chairman, one representing each Sector.

e) The ICG shall be open to members of both Sectors in accordance with Nos. 86 and 110 of the Constitution.

f) The ICG shall not develop Recommendations.

g) The ICG shall prepare reports on its coordinating activities to be presented to each Sector's advisory group; these reports shall be submitted by the Directors to the two Sectors.

h) An ICG may also be established by the World Telecommunication Standardization Assembly or by the Radiocommunication Assembly following a recommendation by the advisory group of the other Sector.

i) The cost of an ICG shall be supported by the two Sectors on an equal basis and each Director shall include budgetary provisions for such meetings in the budget of their Sector.

ANNEX C
(to Resolution 18)

Coordination of radiocommunication and telecommunication standardization activities through intersector rapporteur groups

With respect to *resolves* 2 iii), the following procedure shall be applied when work on a specific subject could be best performed by bringing together technology experts from the study groups or working parties concerned of the two Sectors to cooperate on a peer-to-peer basis in a technical group:

a) the study groups concerned in each Sector may, in special cases, agree by mutual consultation to establish an intersector rapporteur group (IRG) to coordinate their work on a specific technical subject, informing TSAG and RAG of this action through a liaison statement;

b) the study groups concerned in each Sector shall, at the same time, agree on clearly defined terms of reference for the IRG, and establish a target date for completion of the work and termination of the IRG;

c) the study groups concerned in each Sector shall also designate the chairman (or co-chairmen) of the IRG, taking into account the requested specific expertise and ensuring equitable representation of each Sector;

d) an IRG shall be regulated by the provisions applicable to rapporteur groups, given in Resolution ITU-R 1-6 and in Recommendation ITU-T A.1; participation is limited to members of ITU-T and ITU-R;

e) in fulfilling its mandate, an IRG may develop draft new Recommendations or draft revisions to Recommendations, as well as draft technical reports, to be submitted to its parent study groups for further processing as appropriate;

f) the results of an IRG's work should represent the agreed consensus of the IRG or reflect the diversity of views of the participants in the IRG;

g) an IRG shall also prepare reports on its activities, to be submitted to each meeting of its parent study groups;

h) an IRG shall normally work by correspondence and/or by teleconference; however, it may occasionally hold short face-to-face meetings, preferably collocated with meetings of the parent study groups.

RESOLUTION 20 (Rev. Dubai, 2012)

Procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources

(Helsinki, 1993; Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) the relevant rules of the International Telecommunication Regulations (ITRs) regarding the integrity of numbering resources;

b) the instructions in the resolutions adopted by plenipotentiary conferences relevant for the stability of numbering plans, especially the ITU-T E.164 plan, and in particular in Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, where it resolves to instruct the Secretary-General and the Directors of the Bureaux: "to take any necessary action to ensure the sovereignty of ITU Member States with regard to Recommendation ITU-T E.164 numbering plans whatever the application in which they are used",

noting

a) that the procedures governing the allocation and management of international numbering, naming, addressing and identification (NNAI) resources and related codes (e.g. new telephone country codes, telex destination codes, signalling area/network codes, data country codes, mobile country codes, identification) are laid down in the relevant Recommendations in the ITU-T E-, ITU-T F-, ITU-T Q- and ITU-T X-series;

b) that the principles concerning future NNAI plans to deal with emerging services or applications and relevant NNAI resource allocation procedures to meet international telecommunication needs will be studied in accordance with this resolution and the work programme approved by this assembly for study groups of the ITU Telecommunication Standardization Sector (ITU-T);

c) the ongoing deployment of next-generation networks (NGN), future networks (FN) and IP-based networks;

d) that several international telecommunication NNAI resources are developed and maintained by ITU-T study groups and are in widespread use;

e) that the national authorities responsible for allocation of NNAI resources, including ITU-T Q.708 signalling area/network codes and ITU-T X.121 data country codes, normally participate in ITU-T Study Group 2;

f) that it is in the common interest of ITU-T Member States and Sector Members that the Recommendations and guidelines for international telecommunication numbering, naming, addressing and identification resources should:

i) be known, recognized and applied by all;

ii) be used to build and maintain confidence of all in the related services;

iii) address misuse of such resources;

g) Articles 14 and 15 of the ITU Convention concerning the activities of ITU-T study groups and the responsibilities of the Director of the Telecommunication Standardization Bureau (TSB), respectively,

considering

a) that the assignment of international NNAI resources is a responsibility of the Director of TSB and the relevant administrations;

b) the global growth of mobile and Internet subscribers and the convergence of telecommunication services,

resolves to instruct

1 the Director of TSB, before assigning, reassigning and/or reclaiming international NNAI resources, to consult:

i) the chairman of Study Group 2, in liaison with the chairmen of the other relevant study groups, or if needed the chairman's delegated representative; and

ii) the relevant administration(s); and/or

iii) the authorized applicant/assignee when direct communication with TSB is required in order to perform its responsibilities.

In the Director's deliberations and consultations, the Director will consider the general principles for the allocation of NNAI resources, and the provisions of the relevant Recommendations in the ITU-T E-, ITU-T F-, ITU-T Q- and ITU-T X-series, and those to be further adopted;

2 Study Group 2, in liaison with the chairmen of the other relevant study groups, to provide to the Director of TSB:

i) advice on technical, functional and operational aspects in the assignment, reassignment and/or reclamation of international NNAI resources in accordance with the relevant Recommendations, taking into account the results of any ongoing studies;

ii) information and guidance in cases of reported complaints about misuses of international telecommunication NNAI resources;

3 the Director of TSB, in close collaboration with Study Group 2, and any other relevant study groups, to follow up on the misuse of any NNAI resources and inform the ITU Council accordingly;

4 the Director of TSB to take the appropriate measures and actions where Study Group 2, in liaison with the other relevant study groups, has provided information, advice and guidance in accordance with *resolves to instruct* 2 and 3 above;

5 Study Group 2 to study, urgently, necessary action to ensure that the sovereignty of ITU Member States with regard to country code NNAI plans is fully maintained, including ENUM as enshrined in Recommendation ITU-T E.164 and other relevant Recommendations and procedures; this shall cover ways and means to address and counter any misuse of any NNAI resources, and of call progress tones and signals, through proper development of a proposed resolution and/or the development and adoption of a Recommendation towards this aim.

RESOLUTION 22 (Rev. Dubai, 2012)

Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies

(Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that, under the provisions of Article 14A of the ITU Convention, the Telecommunication Standardization Advisory Group (TSAG) is to provide guidelines for the work of study groups and recommend measures to foster coordination and cooperation with other standards bodies;

b) that the rapid pace of change in the telecommunication environment and in industry groups dealing with telecommunications demands that the ITU Telecommunication Standardization Sector (ITU-T) make decisions on matters such as work priorities, study group structure and meeting schedules in shorter periods of time, between world telecommunication standardization assemblies (WTSA), in order to maintain its relevance and responsiveness;

c) that Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference resolves that WTSA shall continue, in accordance with its responsibilities, and subject to available financial resources, to promote the continued evolution of the standardization sector and adequately address strategic issues in standardization by means such as, but not limited to, the strengthening of TSAG;

d) that Resolution 122 (Rev. Guadalajara, 2010) instructs the Director of the Telecommunication Standardization Bureau (TSB) to continue, in consultation with relevant bodies, and the ITU membership, and in coordination with the ITU Radiocommunication Sector and the ITU Telecommunication Development Sector, as appropriate, to organize a Global Standards Symposium (GSS);

e) that GSS was held in conjunction with this assembly to consider bridging the standardization gap and examining global ICT standards challenges;

f) that TSAG continues to make proposals for enhancing the operational efficiency of ITU-T, for improving the quality of ITU-T Recommendations and for methods of coordination and cooperation;

g) that TSAG can help improve coordination of the study process and provide improved decision-making processes for the important areas of ITU-T activities;

h) that flexible administrative procedures, including those related to budgetary considerations, are needed in order to adapt to rapid changes in the telecommunication environment;

i) that it is desirable for TSAG to act in the four years between WTSAs in order to meet the needs of the marketplace in a timely manner;

j) that it is desirable for TSAG to consider the implications of new technologies for the standardization activities of ITU-T and how such technologies can be included within the ITU-T work programme;

k) that TSAG can play an important role in ensuring coordination between study groups, as appropriate, on standardization issues including, as required, avoiding duplication of work, and identifying linkages and dependencies between related work items;

l) that TSAG, in providing advice to study groups, may take account of the advice of other groups,

noting

a) that Article 13 of the Convention states that a WTSA may assign specific matters within its competence to TSAG indicating the action required on those matters;

b) that the duties of WTSA are specified in the Convention;

c) that the current four-year cycle for WTSAs effectively precludes the possibility of addressing unforeseen issues requiring urgent action in the interim period between assemblies;

d) that TSAG meets at least on a yearly basis;

e) that TSAG has already exhibited the capability to act effectively, on matters assigned to it by WTSA,

recognizing

that the Plenipotentiary Conference (Marrakesh, 2002) adopted Nos. 191A and 191B of the Convention that allow WTSA to establish and terminate other groups,

resolves

1 to assign to TSAG the following specific matters within its competence between this assembly and the next assembly to act in the following areas in consultation with the Director of TSB, as appropriate:

a) maintain up-to-date, efficient and flexible working guidelines;

b) assume responsibility, including development and submission for approval under appropriate procedures, for the ITU-T A-series Recommendations (Organization of the work of ITU-T);

c) restructure and establish ITU-T study groups and assign chairmen and vice-chairmen to act until the next WTSA in response to changes in the telecommunication marketplace;

d) issue advice on study group schedules to meet standardization priorities;

e) while recognizing the primacy of the study groups in carrying out the activities of ITU-T, create, terminate or maintain other groups, including focus groups, appoint their chairmen and vice-chairmen, and establish their terms of reference with a defined duration, in accordance with Nos. 191A and 191B of the Convention, in order to enhance and improve the effectiveness of ITU-T's work as well as promoting flexibility in responding rapidly to high-priority issues; such groups shall not adopt Questions or Recommendations, in accordance with Article 14A of the Convention, but work on a specific mandate;

f) review reports of and consider appropriate proposals made by coordination groups and other groups, and implement those that are agreed;

g) establish the appropriate mechanism and encourage the utilization, for example, of coordination groups or other groups, to address key topics of work which span several study groups, with a view to ensuring effective coordination of standardization topics in order to achieve suitable global solutions;

h) advise the Director of TSB on financial and other matters;

i) approve the programme of work arising from the review of existing and new Questions and determine the priority, urgency, estimated financial implications and time-scale for the completion of their study;

j) group, as far as practicable, Questions of interest to developing countries, including the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition, in order to facilitate their participation in these studies;

k) address other specific matters within the competence of WTSA, subject to the approval of Member States, using the approval procedure contained in Resolution 1 (Rev. Dubai, 2012) of this assembly, Section 9;

2 that revisions to the relevant procedures for the adoption of Questions and Recommendations by study groups, other than those referred to in Nos. 246D, 246F and 246H of the Convention, may be initiated by TSAG for approval by Member States between WTSAs, using the approval procedure contained in Resolution 1 (Rev. Dubai, 2012) of this assembly, Section 9;

3 that TSAG provide liaison on its activities to organizations outside ITU in consultation with the Director of TSB, as appropriate;

4 that TSAG consider the implications, for ITU-T, of market needs and new emerging technologies that have not yet been considered for standardization by ITU-T, establish an appropriate mechanism to facilitate the examination of their consideration, for example assigning Questions, coordinating the work of study groups or establishing coordination groups or other groups, and nominate their chairmen and vice-chairmen;

5 that TSAG consider the result of this assembly concerning GSS and take follow-up actions, as appropriate;

6 that a report on the above TSAG activities shall be submitted to the next WTSA.

RESOLUTION 29 (Rev. Dubai, 2012)

Alternative calling procedures on international telecommunication networks

(Geneva, 1996; Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 1099, adopted by the Council at its 1996 session, concerning alternative calling procedures on international telecommunication networks, which urged the ITU Telecommunication Standardization Sector (ITU-T) to develop, as soon as possible, the appropriate Recommendations concerning alternative calling procedures;

b) Resolution 22 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference, in particular its *resolves* 1, 2, 3 and 4;

c) Resolution 21 (Rev. Antalya, 2006) of the Plenipotentiary Conference, on alternative calling procedures on telecommunication networks, in particular its *resolves* 1, 2 and 3,

recognizing

a) that call-back, refiling, non-identification[1] and other alternative calling procedures, which may be potentially harmful, are not permitted in many countries and permitted in some others;

b) that call-back, inappropriate hubbing, refiling, non-identification and other alternative calling procedures, which may be potentially harmful, offer alternative calling procedures which may be attractive for users;

c) that call-back, inappropriate hubbing, refiling, non-identification and other alternative calling procedures, which may be potentially harmful and may impact the revenue of operating agencies authorized by Member States, which may seriously hamper, in particular, the efforts of developing countries[2], for the sound development of their telecommunication networks and services;

d) that distortions in traffic patterns resulting from call-back, inappropriate hubbing, refiling, non-identification and other alternative calling procedures, which may be potentially harmful, may impact traffic management and network planning;

e) that some forms of call-back seriously degrade the performance and quality of the public switched telephone network (PSTN),

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1 The lack of sufficient information to allow identification of the origin of the call.

2 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

considering

the results of the ITU workshop on alternative calling procedures and origin identification held in Geneva on 19-20 March 2012,

reaffirming

a) that it is the sovereign right of each country to regulate its telecommunications and as such it may permit, prohibit or otherwise regulate call-back, refiling or matters related to caller identification in its territory;

b) that the ITU Constitution, in its Preamble, gave regard to "the growing importance of telecommunication for the preservation of peace and the economic and social development of all States", and that Member States agreed in the Constitution with "the object of facilitating peaceful relations, international cooperation among peoples and economic and social development by means of efficient telecommunication services",

noting

that in order to minimize the effect of alternative calling procedures:

i) operating agencies authorized by Member States should, within their national law, make every effort to establish the level of collection charges on a cost-oriented basis, taking into account Article 6.1.1 of the International Telecommunication Regulations and Recommendation ITU-T D.5;

ii) administrations and operating agencies authorized by Member States should vigorously pursue the implementation of Recommendation ITU-T D.140 and the principle of cost-oriented accounting rates and accounting-rate shares,

resolves

1 that administrations and operating agencies authorized by Member States should take, to the furthest extent practicable, all measures to suspend the methods and practices of call-back which seriously degrade the quality and the performance of the PSTN, such as constant calling (or bombardment or polling) and answer suppression;

2 that administrations and operating agencies authorized by Member States should take a cooperative approach to respecting the national sovereignty of others, and suggested guidelines for this collaboration are attached;

3 to continue developing appropriate Recommendations concerning alternative calling procedures and, in particular, the technical aspects of the methods and practices of call-back which seriously degrade the quality and the performance of the PSTN, such as constant calling (or bombardment or polling) and answer suppression;

4 to instruct ITU-T Study Group 2 to study other aspects and forms of alternative calling procedures, including refiling and non-identification, and service definition and requirements for hubbing;

5 to instruct ITU-T Study Group 3 to study the economic effects of call-back, refiling and inappropriate hubbing and other forms of alternative calling procedures, as well as origin non-identification or spoofing, on the effort of developing countries for sound development of their local telecommunication networks and services, and to evaluate in cooperation with Study Group 2 the effectiveness of the suggested guidelines on call-back,

instructs the Director of the Telecommunication Standardization Bureau

to continue to cooperate with the Director of the Telecommunication Development Bureau in order to facilitate the participation of developing countries in these studies and to make use of the results of the studies, and in the implementation of this resolution.

ATTACHMENT
(to Resolution 29)

Suggested guidelines for administrations and operating agencies authorized by Member States for consultation on call-back

In the interest of global development of international telecommunications, it is desirable for administrations and operating agencies authorized by Member States to cooperate with others and to take a collaborative approach. Any cooperation and any subsequent actions would have to take account of the constraints of national laws. The following guidelines are recommended to be applied in country X (the location of the call-back user) and country Y (the location of the call-back provider) regarding call-back. When call-back traffic is destined to a country other than countries X or Y, the sovereignty and the regulatory status of the destination country should be respected.

Country X (location of call-back user)	**Country Y (location of call-back provider)**
A generally collaborative and reasonable approach is desirable	A generally collaborative and reasonable approach is desirable
Administration X, wishing to restrict or prohibit call-back, should establish a clear policy position	
Administration X should make known its national position	Administration Y should bring this information to the attention of operating agencies authorized by Member States and call-back providers in its territory using whatever official means are available
Administration X should instruct operating agencies authorized by Member States operating in its territory as to the policy position, and those operating agencies authorized by Member States should take steps to ensure that their international operating agreements comply with that position	Operating agencies authorized by Member States in Y should cooperate in considering any necessary modifications to international operating agreements

Country X (location of call-back user)	Country Y (location of call-back provider)
	Administration Y and/or operating agencies authorized by Member States in Y should seek to ensure that call-back providers establishing an operation in their territory are aware that: *a)* call-back should not be provided in a country where it is expressly prohibited, and *b)* the call-back configuration must be of a type which will not degrade the quality and performance of the international PSTN
Administration X should take all reasonable steps within its jurisdiction and responsibility to stop the offering and/or usage of call-back in its territory which is: *a)* prohibited; and/or *b)* harmful to the network. Operating agencies authorized by Member States in country X will cooperate in the implementation of such steps.	Administration Y and operating agencies authorized by Member States in Y should take all reasonable measures to stop call-back providers in its territory offering call-back: *a)* in other countries where it is prohibited; and/or *b)* which is harmful to the networks involved.

NOTE – For relations between countries who regard call-back as an "international telecommunication service" as defined in the International Telecommunication Regulations, bilateral operating agreements should be required between the operating agencies authorized by Member States concerned as to the conditions under which call-back will be operated.

RESOLUTION 31 (Rev. Dubai, 2012)

Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Standardization Sector

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that the rapid pace of change in the telecommunication environment and in industry groups dealing with telecommunications demand the increased participation of interested entities and organizations in the standard-making process of ITU;

b) that entities or organizations with highly focused areas of activity may be interested only in a small part of the standardization work of the ITU Telecommunication Standardization Sector (ITU-T) and, therefore, do not intend to apply for membership in the Sector, but would be willing to join if simpler conditions existed;

c) that No. 241A of the ITU Convention enables the Sectors to admit participation of entities or organizations in the work of a given study group as an Associate;

d) that Nos. 241A, 248B and 483A of the Convention describe the principles for the participation of Associates,

recognizing

that organizations and entities from developing countries[1] have found great difficulty in playing an active role in ITU-T activities and, as a consequence, in meeting the goals of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

resolves

1 that an interested entity or organization may join ITU-T as an Associate and be entitled to take part in the work of a selected single study group;

2 that Associates are limited to the study group roles described below and excluded from all others:

- Associates may take part in the process of preparing Recommendations within a study group, including the following roles: meeting participant, contribution submitter, Recommendation editor, and, during the alternative approval process, provider of comments during the last-call period (but not during the additional review period);
- Associates may have access to documentation required for their work;

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- an Associate may serve as rapporteur, responsible for directing the studies for the relevant study Question within the selected study group, except for taking part in any decision-making or liaison activities which are to be handled separately, in accordance with No. 248B of the Convention;

3 that the amount of the financial contribution for Associates be based upon the contributory unit for Sector Members as determined by Council for any particular biennial budgetary period,

requests

1 the Secretary-General to admit entities or organizations to participate as Associates in the work of a given study group or subgroups thereof following the principles set out in Nos. 241B, 241C, 241D and 241E of the Convention;

2 the Telecommunication Standardization Advisory Group to review on an ongoing basis the conditions governing the participation (including financial impact on the Sector budget) of Associates based on the experience gained within ITU-T,

instructs the Director of the Telecommunication Standardization Bureau

to prepare the necessary logistics for the participation of Associates in the work of ITU-T, including possible impacts of study group reorganization.

RESOLUTION 32 (Rev. Dubai, 2012)

Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the rapid pace of technology change and the consequent need for improved and more rapid standards development;

b) that electronic working methods (EWM) enable open, rapid and easy collaboration between participants in the activities of the ITU Telecommunication Standardization Sector (ITU-T);

c) that the implementation of EWM capabilities and associated arrangements will have significant benefits for the ITU-T membership, including resource-limited individuals, organizations and states, by allowing them timely and effective access to standards information and the standards-making and approval process;

d) that EWM will be advantageous for improving communication among members of ITU-T and between other relevant standardization organizations and ITU, towards globally harmonized standards;

e) the key role of the Telecommunication Standardization Bureau (TSB) in providing support to EWM capabilities;

f) the decisions contained in Resolution 66 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

g) the budgetary difficulty developing countries[1] have in participating actively in face-to-face ITU-T meetings;

h) Resolution 167 (Guadalajara, 2010) of the Plenipotentiary Conference, which resolves that ITU should further develop its facilities and capabilities for remote participation by electronic means in appropriate meetings of the Union, including working groups created by the Council,

noting

a) the desire of members to receive documents in electronic format in a timely manner and the need to reduce the increasing amount of hard copy documentation generated during meetings and dispatched by mail;

b) that many forms of EWM have already been implemented by ITU-T, such as electronic document submission and the electronic forum service;

c) the desire of ITU-T members to conduct electronic meetings;

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

d) the increasing use of portable computers by members during meetings;

e) the advantage to the membership of facilitating greater electronic participation in the development and approval of Recommendations, in particular by members unable to participate in study group meetings in Geneva and elsewhere;

f) the difficulties in terms of bandwidth availability and other constraints, particularly in developing countries;

g) the economies possible from enhancing ITU-T EWM capabilities (e.g. reduced costs for distribution of paper documentation, travel costs, etc.);

h) the encouragement by other telecommunication standardization organizations of collaboration using EWM;

i) that the alternative approval process (AAP) (Recommendation ITU-T A.8) is conducted primarily by electronic means,

resolves

1 that the principal EWM objectives of ITU-T are:

- that collaboration between members on development of Recommendations should be by electronic means;
- that TSB, in close collaboration with the ITU Telecommunication Development Bureau (BDT), should provide facilities and capabilities for EWM at ITU-T meetings, workshops and training courses, particularly to assist developing countries that have bandwidth limitations and other constraints;
- to encourage electronic participation of developing countries in ITU-T meetings, by providing simplified facilities and guidelines, and by waiving any expenses for those participants, other than the local call or Internet connectivity charges;
- that TSB, in close collaboration with BDT, should provide facilities and capabilities for EWM at ITU-T meetings, workshops and training courses, and encourage participation of developing countries, by waiving, within the credits that the Council is empowered to authorize, any expenses for those participants, other than the local call or Internet connectivity charges;
- that TSB should provide all members of ITU-T with appropriate and ready access to electronic documentation for their work, including a global, unified and consolidated view of document traceability;
- that TSB should provide appropriate systems and facilities to support the conduct of ITU-T's work by electronic means; and
- that all activities, procedures, studies and reports of ITU-T study groups be posted on the ITU-T website so as to facilitate navigation to find all relevant information,

2 that these objectives should be systematically addressed in an EWM action plan, including individual action items identified by the ITU-T membership or TSB, and prioritized and managed by TSB with the advice of the Telecommunication Standardization Advisory Group (TSAG),

instructs

1 the Director of TSB to:

- maintain the EWM Action Plan to address the practical and physical aspects of increasing the EWM capability of ITU-T;
- identify and review costs and benefits of the action items on a regular basis;
- report to each meeting of TSAG the status of the Action Plan, including the results of the cost and benefit reviews described above;
- provide the executive authority, budget within TSB, and resources to execute the Action Plan with all possible speed;
- develop and disseminate guidelines for the use of ITU-T EWM facilities and capabilities;
- take action, in order to provide appropriate electronic participation or observation facilities (e.g. webcast, audioconference, webconference/document sharing, videoconference, etc.) in ITU-T meetings, workshops and training courses for delegates unable to attend events in person and to coordinate with BDT to assist in the provision of such facilities; and
- provide an ITU-T website that is easy to navigate to find all relevant information,

2 the TSAG EWM Working Party to continue to:

- act as the point of contact between ITU-T membership and TSB on EWM matters, in particular providing feedback and advice on the contents, prioritization and implementation of the Action Plan;
- identify user needs and plan the introduction of suitable measures through appropriate subgroups and pilot programmes;
- request study group chairmen to identify EWM liaisons;
- encourage participation by all participants in the work of ITU-T, especially EWM experts from TSAG, the study groups, TSB and appropriate ITU Bureaux and departments;
- continue its work electronically outside TSAG meetings as necessary to carry out its objectives.

RESOLUTION 33 (Rev. Dubai, 2012)

Guidelines for strategic activities of the ITU Telecommunication Standardization Sector

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

noting

a) that, in accordance with No. 197C of the ITU Convention, the duties of the Telecommunication Standardization Advisory Group (TSAG) shall include, *inter alia*, to review strategies and priorities for activities in the ITU Telecommunication Standardization Sector (ITU-T);

b) that, in accordance with Resolutions 71 and 72 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference concerning strategic issues, TSAG will provide advice on the strategic plan and the goals, strategies and priorities for the Sector, including recommendations to adjust the plan in light of changes in the telecommunication environment,

recognizing

that the Union, and ITU-T in particular, is faced with the challenge to remain an active and effective international forum where Member States, Sector Members and Associates work together to encourage the development of global telecommunications and to facilitate universal access to telecommunication and information services in order to provide to people everywhere the opportunity to participate in and benefit from the global information society and economy,

considering

the relevant outputs of the World Summit on the Information Society (WSIS) regarding ITU-T, particularly § 44 of the WSIS Geneva Declaration of Principles, which recognizes that "standardization is one of the essential building blocks of the information society",

resolves to invite Member States and Sector Members

to continue contributing their insights on the strategic plan and priorities of ITU-T to the TSAG strategic planning process,

instructs the Telecommunication Standardization Advisory Group

1 to monitor the Sector's work during the current study period in light of the current strategic plan adopted in Resolution 71 (Rev. Guadalajara, 2010) and the evolution of the telecommunication environment, including:

- setting appropriate priorities during the course of the study period in order to achieve the Sector's objectives against which the performance of the Sector can be measured;
- obtaining regular reports from study group chairmen and other responsible entities as to the achievement of such priorities;

- implementing appropriate action to enable priorities and strategic objectives to be amended in light of changes in the telecommunication environment, or non-achievement of anticipated events;

- evaluating the continuing relevance and applicability of the current plan and proposing the necessary changes, as required;

2 to prepare proposals to assist in preparation of the Union's draft strategic plan for the coming study period that duly reflect:

- the main objectives in the current strategic plan that continue to be relevant;

- new and converging technologies, their priority outcomes and the need to develop, rapidly and reliably, appropriate global standards;

- ongoing and new changes in the telecommunication environment;

- the need to define clearly, and establish broadly, formal relationships with the broadest practicable population of international, regional and other standardization bodies, based on guidelines already agreed in relevant ITU-T A-series Recommendations, and to implement the relevant conclusions of the Global Standards Symposium (GSS), in accordance with Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

- the ongoing evolution in the role of ITU-T, which needs to be increasingly inclusive of market dynamics, and needs to coordinate and cooperate, for mutual benefit, with other relevant entities, in order to accelerate the efficient development of internationally useful standards;

- the implementation of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developed and developing countries, including the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

RESOLUTION 34 (Rev. Dubai, 2012)

Voluntary contributions

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the strategic plan for the Union 2012-2015, targeting ambitious strategic objectives in the activities of the ITU Telecommunication Standardization Sector (ITU-T);

b) Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, which invites Member States and Sector Members to make voluntary contributions to the fund for bridging the standardization gap;

c) Decision 5 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference and the annexes thereto, limiting expenditure of the Union for the period 2012 to 2015;

d) Resolution 44 (Rev. Dubai, 2012) of this assembly, on bridging the standardization gap between developed and developing countries[1], which describes the sources from which funds will be raised for the purpose of bridging the standardization gap,

recalling

a) that the ITU Constitution, Convention and Financial Regulations stipulate that the Secretary-General may accept voluntary financial contributions in cash or in kind, in addition to the regular contributions from the Member States, Sector Members and Associates;

b) that expenditures under voluntary contributions are outside the limits of expenditure set by ITU plenipotentiary conferences;

c) that important voluntary contributions made to ITU-T in the past permitted ITU-T to make significant progress in its work,

considering further

that voluntary contributions are valuable, rapid and efficient instruments in the financing of extra activities for the Sector,

resolves

1 to encourage the financing of specific projects, focus groups or other new initiatives, including any activities which help achieve the objectives of Resolution 44 (Rev. Dubai, 2012) of this assembly, on bridging the standardization gap, by voluntary contributions;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 to invite Sector Members and Associates to finance voluntarily the participation of developing countries, and in particular remote participation using electronic working methods, in ITU-T meetings and workshops;

3 to invite Member States, Sector Members and Associates from both developing and developed countries to submit to the Director of the Telecommunication Standardization Bureau projects and other initiatives of interest for ITU-T to be financed under voluntary contributions.

RESOLUTION 35 (Rev. Dubai, 2012)

Appointment and maximum term of office for chairmen and vice-chairmen of study groups of the Telecommunication Standardization Sector and of the Telecommunication Standardization Advisory Group

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that No. 189 of the ITU Convention provides for the establishment of study groups of the ITU Telecommunication Standardization Sector (ITU-T);

b) that Article 20 of the Convention provides that, in appointing chairmen and vice-chairmen, personal competence and equitable geographical distribution should be especially kept in mind, as well as the need to promote more effective participation by developing countries[1];

c) that No. 192 of the Convention and other related provisions indicate the nature of the work of the study groups;

d) that provisions for the Telecommunication Standardization Advisory Group (TSAG) have been incorporated in Article 14A of the Convention;

e) that No. 242 of the Convention requires the World Telecommunication Standardization Assembly (WTSA) to appoint chairmen and vice-chairmen of study groups, taking account of competence and equitable geographical distribution, and the need to promote more efficient participation by the developing countries;

f) that 1.10 of Section 1 of Resolution 1 (Rev. Dubai, 2012) of this assembly indicates that WTSA shall appoint the chairmen and vice-chairmen of study groups and of TSAG;

g) that Section 3 of Resolution 1 (Rev. Dubai, 2012) of this assembly contains guidelines regarding the appointment of study group chairmen and vice-chairmen at WTSAs;

h) that procedures and qualifications for the chairman and vice-chairmen of TSAG should generally follow those for the appointment of study group chairman and vice-chairmen;

i) that experience of ITU in general and of ITU-T in particular would be of particular value for the chairman and vice-chairmen of TSAG;

j) that No. 244 of the Convention describes the procedure for replacing a study group chairman or vice-chairman who is unable to carry out his or her duties at some time in the interval between two WTSAs;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

k) that No. 197G of the Convention states that TSAG shall "adopt its own working procedures compatible with those adopted by the world telecommunication standardization assembly";

l) that a specific time-limit on the term of office would permit the introduction of new ideas on a periodic basis, while at the same time give an opportunity for study group chairmen and vice-chairmen and the chairman and vice-chairmen of TSAG to be appointed from different Member States and Sector Members,

pursuant to

Resolution 166 (Guadalajara, 2010) of the Plenipotentiary Conference, on the number of vice-chairmen of Sector advisory groups, study groups and other groups,

noting

a) Article 19 of the Convention, on the participation of entities and organizations in the Union's activities;

b) Resolution 58 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on strengthening of relations between ITU and regional telecommunication organizations and regional preparations for the Plenipotentiary Conference;

c) Resolution 43 (Rev. Dubai, 2012) of this assembly, on regional preparations for WTSAs,

taking into account

a) that a maximum time in office of two terms for study group and TSAG chairmen and vice-chairmen provides for a reasonable amount of stability while providing the opportunity for different individuals to serve in these capacities;

b) that the management team of a study group should include at least the chairman, vice-chairmen and working party chairmen,

c) Resolution 55 (Rev. Dubai, 2012) of this assembly, and the importance of incorporating gender policies in each of the Sectors of ITU,

resolves

1 that candidates for the posts of chairmen and vice-chairmen of the ITU-T study groups and candidates for the posts of chairman and vice-chairmen of TSAG should be appointed according to the procedures given in Annex A, the qualifications given in Annex B and the guidelines given in Annex C to this resolution;

2 that candidates for the posts of study group chairmen and vice-chairmen and candidates for the posts of chairman and vice-chairmen of TSAG should be identified, taking into account that, for each study group and for TSAG, WTSA will appoint the chairman and only the number of vice-chairmen deemed necessary for the efficient and effective management and functioning of the group in question, applying the guidelines given in Annex C;

3 that nominations for the posts of study group chairmen and vice-chairmen or for a post of chairman and vice-chairmen of TSAG should be accompanied by a biographical profile highlighting the qualifications of the individuals proposed, taking into careful consideration continuity in participation in ITU-T study groups or TSAG, and that the Director of the Telecommunication Standardization Bureau will circulate the profiles to the heads of delegation present at WTSA;

4 that the term of office for both chairmen and vice-chairmen should not exceed two terms of office between consecutive assemblies;

5 that the term of office in one appointment (e.g. as a vice-chairman) does not count towards the term of office for another appointment (e.g. as a chairman) and that steps should be taken to provide some continuity between chairmen and vice-chairmen;

6 that the interval between assemblies during which a chairman or vice-chairman is elected under No. 244 of the Convention does not count towards the term of office,

invites Member States and Sector Members

to support their successful candidates for such posts in ITU-T, and support and facilitate their task during their term of office.

ANNEX A
(to Resolution 35)

Procedure for the appointment of chairmen and vice-chairmen of the ITU-T study groups and of TSAG

1 Typically, the positions of chairmen and vice-chairmen to be filled are known in advance of WTSA.

a) In order to help WTSA appoint chairmen/vice-chairmen, Member States and ITU-T Sector Members are encouraged to indicate to the Director of TSB suitable candidates, preferably three months, but no later than two weeks, before the opening of WTSA.

b) In nominating suitable candidates, ITU-T Sector Members should carry out prior consultations with the administration/Member State concerned, in order to avoid any possible disagreement in regard to such nomination.

c) On the basis of received proposals, the Director of TSB will circulate to Member States and Sector Members the list of candidates. The list of candidates should be accompanied by an indication of the qualifications of each candidate as given in Annex B to this resolution.

d) On the basis of this document and any relevant received comments, the heads of delegation, at a suitable time during WTSA, should be invited to prepare, in consultation with the Director of TSB, a consolidated list of designated study group chairmen and vice-chairmen to be submitted in a document to WTSA for final approval.

e) In drafting the consolidated list, the following should be taken into account: In cases where there are two or more candidates with equal competence for the same chairman position, preference should be given to candidates from Member States and Sector Members having the lowest number of designated study group and TSAG chairmen.

2 Situations which cannot be considered within the above will be dealt with on a case-by-case basis at WTSA.

For example, if a merger of two existing study groups is envisaged, the proposals pertaining to the relevant study groups can be considered. Therefore the procedure outlined in § 1 can still be applied.

However, if WTSA decides to set up a completely new study group, discussions will have to be held at WTSA and appointments made.

3 These procedures should be applied for appointments made by TSAG under delegated authority (see Resolution 22 (Rev. Dubai, 2012) of this assembly).

4 Vacant positions of chairmen and vice-chairmen that occur in mid-term between WTSAs are filled in accordance with No. 244 of the Convention.

ANNEX B
(to Resolution 35)

Qualifications of chairmen and vice-chairmen

No. 242 of the Convention states that:

"… In appointing chairmen and vice-chairmen, particular consideration shall be given to the requirements of competence and equitable geographical distribution and to the need to promote more efficient participation by the developing countries."

Whilst giving primary consideration to the qualifications below, there should be an appropriate representation of chairmen and vice-chairmen from developing countries, including the least developed countries, small island developing states and countries with economies in transition.

As regards competence, the following qualifications, *inter alia*, appear to be of paramount importance when appointing chairmen and vice-chairmen:

– knowledge and experience;

– continuity in participation in the relevant study group or, for chairmen and vice-chairmen of TSAG, in ITU-T;

– managerial skills;

– availability[2].

Particular reference to the above qualifications should be included in the biographical profile to be circulated by the Director of TSB.

[2] A further factor to be considered when appointing chairmen and vice-chairmen to both study groups and TSAG is candidates' availability for the period up to the next WTSA.

ANNEX C
(to Resolution 35)

Guidelines for appointment of the optimum numbers of vice-chairmen for ITU-T study groups and for TSAG

1 Pursuant to Resolution 166 (Guadalajara, 2010) and No. 242 of the Convention, the requirements of competence, equitable geographical distribution and the need to promote more effective participation by the developing countries should be taken into account[3] to the extent practicable.

2 To the extent possible, and taking into account the need for demonstrated competence, appointment or selection to the management team should utilize the resources of as broad a range of Member States and Sector Members as possible, at the same time recognizing the need to appoint only the number of vice-chairmen necessary for the efficient and effective management and functioning of the study groups, consistent with the projected structure and work programme.

3 The workload should be a factor in determining the appropriate number of vice-chairmen to ensure that every aspect within the purview of TSAG and the study groups is fully managed.

4 The total number of vice-chairmen proposed by any administration should be fairly reasonable, so as to observe the principle of equitable distribution of posts among the Member States concerned.

5 Regional representation[4] in the advisory group, study groups and other groups of all three Sectors should be taken into account, such that no single individual may hold more than one vice-chairmanship position in these groups in any one Sector, and only in exceptional cases hold such a position in more than one Sector[5].

6 Where the re-election of vice-chairmen is concerned, the nomination of candidates who have failed to participate in at least half of all meetings during the previous study period should normally be avoided, taking into account prevailing circumstances.

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[3] For those regions consisting of numerous administrations and with diverse economic and technological developments within the region, to the extent possible the number of representatives of those regions may be increased, as appropriate.

[4] Taking into account Resolution 58 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference in regard to the six regional telecommunication organizations, namely: the Asia-Pacific Telecommunity (APT), the European Conference of Postal and Telecommunications Administrations (CEPT), the Inter-American Telecommunications Commission (CITEL), the African Telecommunications Union (ATU), the Council of Arab Ministers of Telecommunication and Information represented by the Secretariat-General of the League of Arab States (LAS), and the Regional Commonwealth in the field of Communications (RCC).

[5] The criterion mentioned in this paragraph should not prevent a vice-chairman of a given advisory group or a vice-chairman of a given study group from holding positions of chairman or vice-chairman of a given working party or as rapporteur or associate rapporteur for any group under the mandate of that Sector group.

RESOLUTION 38 (Rev. Dubai, 2012)

Coordination among the three ITU Sectors for activities relating to International Mobile Telecommunications

(Montreal, 2000; Florianópolis 2004; Johannesburg, 2008, Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that the International Telecommunication Standardization Sector (ITU-T) is actively continuing its studies on mobility and overall network aspects of International Mobile Telecommunications (IMT);

b) that Study Group 5 of the ITU Radiocommunication Sector (ITU-R) has the ITU-R responsibility for the development of IMT;

c) that the first session of the Conference Preparatory Meeting (CPM15-1) for the 2015 World Radiocommunication Conference (WRC-15) established the Joint Task Group (JTG) 4-5-6-7 responsible for the development of draft CPM text under WRC-15 agenda items 1.1 and 1.2, related to spectrum identification for IMT-based systems;

d) that the ITU-T study groups involved in the standardization of IMT and ITU-R Study Group 5 have had, and continue to have, effective informal coordination via liaison activity with respect to development of Recommendations relating to IMT for both Sectors;

e) that Resolution ITU-R 50-2 (Geneva, 2012) of the Radiocommunication Assembly (RA), on the role of the Radiocommunication Sector in the ongoing development of IMT, invited ITU-T to draw up a complementary roadmap for all activities relating to IMT and to coordinate it with ITU-R so as to ensure full alignment and harmonization of the work programmes of both ITU-T and ITU-R;

f) that Resolution ITU-R 17-4 (Geneva, 2012) of RA requests the Secretary-General, in coordination with the Directors of the Radiocommunication Bureau (BR), Telecommunication Standardization Bureau (TSB), and Telecommunication Development Bureau (BDT), to continue promoting the adoption of appropriate measures so that all countries, especially developing countries[1], might more adequately plan the structured integration of IMT systems into their current public networks;

g) that the development of a roadmap for each Sector to independently manage and advance its work on IMT within a complementary framework is an efficient means of achieving progress in both Sectors, and that such a roadmap concept facilitates the communication of issues relating to IMT with organizations external to ITU;

h) that Resolution 43 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC) resolved to include, as a priority, support for IMT implementation in developing countries;

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

i) that Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) is currently involved in activities closely coordinated with ITU-T and ITU-R in order to identify the factors influencing the effective development of broadband, including IMT, for developing countries;

j) that it is of the utmost importance to roll out IMT networks in order to develop the broadband plans that a substantial number of countries have started,

noting

a) Resolution 18 (Rev. Dubai, 2012) of this assembly, on principles and procedures for the allocation of work to, and coordination between, ITU-R and ITU-T;

b) Resolution 59 (Hyderabad, 2010) of WTDC, on strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest;

c) Recommendation ITU-T A.4, on the communication process between ITU-T and forums and consortia;

d) Recommendation ITU-T A.5, on generic procedures for including references to documents of other organizations in ITU-T Recommendations;

e) Recommendation ITU-T A.6, on cooperation and exchange of information between ITU-T and national and regional standards development organizations;

f) Resolutions ITU-R 47-2, 50-2, 56-1 and 57-1, on the role of ITU-R in the ongoing development of IMT,

resolves

1 that ITU-T maintain a roadmap for all of its standardization activities relating to IMT;

2 that the effective coordination currently established between ITU-T, ITU-R and ITU-D for activities relating to IMT be continued so as to ensure full alignment and harmonization of the work programmes, including the roadmaps, of the three Sectors,

instructs the Director of the Telecommunication Standardization Bureau

to bring this resolution to the attention of the Directors of BR and BDT,

encourages the Directors of the three Bureaux

to investigate new ways to improve the efficiency of ITU work on IMT.

RESOLUTION 40 (Rev. Dubai, 2012)

Regulatory aspects of the work of the ITU Telecommunication Standardization Sector

(Montreal, 2000; Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

the provisions of Nos. 246D to 246H of the ITU Convention,

considering

a) that the tasks undertaken in the ITU Telecommunication Standardization Sector (ITU-T) cover both technical matters and matters having policy or regulatory implications;

b) that rules pertaining to certain aspects of the Sector's work are being framed in terms that will rely upon clear and certain identification of the boundary between technical matters and matters having policy or regulatory implications;

c) that administrations are encouraging a larger role for Sector Members in the work of ITU-T, particularly on technical matters;

d) that many matters having policy or regulatory implications may involve technical implementation and therefore need to be considered in appropriate technical study groups,

noting

a) that the ITU Member States have identified significant policy responsibilities in Chapter VI of the ITU Constitution (Articles 33-43) and in Chapter V of the Convention (Articles 36-40), and in relevant resolutions of plenipotentiary conferences;

b) that the International Telecommunication Regulations further describe policy and regulatory obligations incumbent upon Member States;

c) that No. 191C of the Convention empowers the World Telecommunication Standardization Assembly (WTSA) to assign matters within its competence to the Telecommunication Standardization Advisory Group (TSAG), indicating the action required on those matters,

resolves

1 that, when determining whether a Question or Recommendation has policy or regulatory implications, particularly Questions or Recommendations which relate to tariff and accounting issues, study groups shall more generally consider possible topics such as:

– the right of the public to correspond;

– protection of telecommunication channels and installations;

– use of the limited natural resources of numbering and addressing;

– naming and identification;

– secrecy and authenticity of telecommunications;

– safety of life;

– practices applicable to competitive markets;

– misuse of numbering resources; and

– any other relevant matters, including those identified by a decision of Member States, or recommended by TSAG, or Questions or Recommendations where there is any doubt about their scope;

2 to request TSAG to consult Member States on any relevant issues other than those specified above;

3 to instruct TSAG to study and identify the operational and technical areas related to quality of service/quality of experience (QoS/QoE) of telecommunications/ICTs that might have policy and regulatory nature, taking into account the studies being carried out by the relevant study groups, and report that to the next WTSA,

invites Member States

to contribute actively to the work to be carried out on this matter.

RESOLUTION 43 (Rev. Dubai, 2012)

Regional preparations for world telecommunication standardization assemblies

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that many regional telecommunication organizations have coordinated their preparations for this and preceding assemblies;

b) that many common proposals have been submitted to this and preceding assemblies from administrations participating in the preparatory work of regional telecommunication organizations;

c) that this consolidation of views at regional level, together with the opportunity for interregional discussions prior to the assembly, has eased the task of reaching a consensus during the assembly;

d) that the burden of preparation for future assemblies is likely to increase;

e) that the coordination of preparations at regional level is consequently of great benefit to the Member States;

f) that greater efficiency of regional coordination and interaction at interregional level prior to future assemblies will help ensure their success;

g) that some regional organizations lack the necessary resources to organize adequately and participate in such preparations;

h) that there is a need for overall coordination of the interregional consultations,

recognizing

a) the benefits of regional coordination as already experienced in the preparation of plenipotentiary conferences, world radiocommunication conferences and world telecommunication development conferences;

b) that regional preparatory meetings for the World Telecommunication Standardization Assembly (WTSA) have helped in identifying and coordinating regional views on issues considered to be of particular relevance to each region, and in developing common regional proposals for submission to WTSAs,

taking into account

the efficiency benefits that WTSAs have gained from an increased amount and level of prior preparation by the Member States,

noting

a) that many regional telecommunication organizations have expressed the need for the Union to cooperate more closely with them;

b) that, consequently, the Plenipotentiary Conference (Minneapolis, 1998) resolved that the Union should develop stronger relations with regional telecommunication organizations, as emphasized in the first objective of the ITU strategic plan for 2008-2011,

noting further

that the relationship between ITU regional offices and regional telecommunication organizations has proved to be of great benefit,

resolves to instruct the Director of the Telecommunication Standardization Bureau

to maintain the organization, within the financial limitations established by the Plenipotentiary Conference, of at least one regional preparatory meeting per region, the closest in time possible to the next WTSA, followed by an informal meeting of the chairmen and vice-chairmen of the regional preparatory meetings and other interested parties, to be held not earlier than twelve months prior to WTSA,

invites the Secretary-General, in cooperation with the Directors of the Bureaux of the three Sectors

1 to consult with Member States and regional and subregional telecommunication organizations on the means by which assistance can be provided in support of their preparations for future WTSAs, including support for the organization of a "Bridging the Standardization Gap Forum" per region to address major issues of the next WTSA of interest to developing countries[1];

2 on the basis of such consultations, to assist Member States and regional and subregional telecommunication organizations in such areas as:

i) the organization of informal regional and interregional preparatory meetings, and formal regional preparatory meetings if a region so requests;

ii) the identification of major issues to be resolved by the next WTSA;

iii) the development of coordination methods;

iv) the organization of information sessions on expected work for WTSA;

3 to submit, no later than the 2013 session of the ITU Council, a report on feedback from Member States concerning WTSA regional preparatory meetings, their results and the application of this resolution,

invites Member States

to participate actively in the implementation of this resolution,

invites regional and subregional telecommunication organizations

1 to participate in coordinating and harmonizing the contributions of their respective Member States in order to generate common proposals where possible;

2 to convene, if possible, informal interregional meetings in order to arrive at interregional common proposals.

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

RESOLUTION 44 (Rev. Dubai, 2012)

Bridging the standardization gap between developing[1] and developed countries

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developing and developed countries, instructs the Secretary-General and the Directors of the three Bureaux to work closely with each other in pursuing initiatives that assist in bridging the standardization gap between developing and developed countries on follow-up and implementation of the operative paragraphs of that resolution supporting coordination in this respect at the regional level through regional offices and organizations;

b) that Resolution 139 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference invites Member States to rapidly implement Resolution 37 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference on bridging the digital divide;

c) that Resolution 166 (Guadalajara, 2010) of the Plenipotentiary Conference, on the number of vice-chairmen of Sector advisory groups and other groups, seeks to promote more effective participation of developing countries;

d) that Resolution 169 (Guadalajara, 2010) of the Plenipotentiary Conference allowed the admission of the academia, universities and their associated research establishments from the developing countries to participate in the work of the three Sectors of the Union for 1/32 of the Sector Member contributory unit,

recognizing

a) that the tasks undertaken in the ITU Telecommunication Standardization Sector (ITU-T) cover Recommendations, conformity assessment and matters having policy or regulatory implications;

b) that the harmonious and balanced development of the worldwide telecommunication facilities and services is of mutual advantage to the developing as well as the developed countries;

c) that there is a need to reduce the cost of equipment and of rolling out networks and facilities taking into account the needs and requirements of developing countries;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

d) that the disparity between developing and developed countries in standardization has five components: disparity of voluntary standardization, disparity of mandatory technical regulations, disparity of conformity assessment, disparity in human resources skilled in standardization and disparity in effective participation in ITU-T activities;

e) that it is of high importance for developing countries to increase their participation in the establishment of telecommunication standards;

f) that, based on the findings of the ITU study on standardization capability of developing countries, there is a need to improve the coordination of information and communication technologies (ICT) standardization activities in many developing countries in order to improve their contribution in ITU-T study groups, and that the establishment of national standardization secretariats could enhance both the standardization activities at national level and the contribution in ITU-T study groups;

g) that the development of guidelines would enhance the participation of developing countries in ITU-T study groups,

recognizing also

a) that Decision 12 (Guadalajara, 2010) of the Plenipotentiary Conference confirmed free-of-charge online access for the general public to ITU-T Recommendations, Recommendations of the ITU Radiocommunication Sector (ITU-R), ITU-R reports, the basic texts of the Union (Constitution, Convention and General Regulations of the conferences, assemblies and meetings of the Union), and the final acts of plenipotentiary conferences;

b) that annual reports presented at the ITU Council regarding policies of free on-line access to ITU publications indicate that said policies have been able to raise the level of awareness regarding standardization activities carried out at the ITU and to promote greater participation of developing countries in these activities;

c) that, under the strategic plan for the Union for 2012-2015, ITU-T is to work to "provide support and assistance to developing countries in bridging the standardization gap in relation with standardization matters, information and communication network infrastructure and applications, and relevant training materials for capacity building, taking into account the characteristics of the telecommunication environment of the developing countries",

noting

a) that while ITU has made significant progress in defining and bridging the standardization gap, the developing countries are still encountering multifarious difficulties in ensuring their efficient participation in the work of ITU-T, in particular engaging in and following up the work of the ITU-T study groups;

b) that the biennial budget structure now includes a separate expenditure line item for bridging the standardization gap activities, while at the same time voluntary contributions are being encouraged, and a management mechanism for this line item has been implemented by the Telecommunication Standardization Bureau (TSB) in close coordination with the Telecommunication Development Bureau (BDT);

c) the budgetary limitations, especially in developing-country institutions, for attendance at ITU-T events of specific interest to them;

d) that ITU's programmes for fostering partnerships, under the patronage of ITU-T, continue to strengthen and expand the assistance ITU provides to its members, particularly developing countries;

e) the importance of having appropriate consultative frameworks for developing countries for the formulation and study of Questions, the preparation of contributions and capacity building;

f) that the organizational set-up and working methods of ITU-T Study Groups 2, 3, 5 and 12 could serve to improve the level of developing-country participation in standardization activities within some of the other study groups and contribute to achieving the objectives of Resolution 123 (Rev. Guadalajara, 2010);

g) that joint meetings of regional groups of different ITU-T study groups, in particular if concatenated with a regional workshop and/or a meeting of a regional standardization body, will encourage the participation of developing countries in these meetings and increase the effectiveness of such meetings;

h) that the Telecommunication Standardization Advisory Group (TSAG) vice-chairmen, who are appointed on a regional representation basis, as well as study group vice-chairmen from developing countries, can be charged with specific responsibility, which can further enhance more active participation, especially of developing countries, in the standardization work of ITU-T;

i) that ITU can further improve both the quality and quantity of developing-country participation in standardization through the role of vice-chairmen and chairmen in mobilizing participation from their regions,

taking into account

a) the relevant conclusions of the Global Standardization Symposium;

b) that the actual participation by developing countries, where it exists, is usually limited to the final approval and implementation stages, rather than in the preparation of proposals prepared in the various working groups;

c) that coordination at national level in many developing countries to handle ICT standardization activities in order to contribute to work in ITU-T needs to be improved;

d) that TSAG agreed to create a mentor role in ITU-T study groups for coordination with representatives from developed and developing countries with the objective of sharing information and best practices with regard to the application of ITU-T Recommendations in order to enhance standardization activities in developing countries and in the regional groups,

recalling

that Resolution 1353 of the ITU Council recognizes that telecommunications and ICT are essential components for developed and developing countries for achieve sustainable development, and instructs the Secretary-General, in collaboration with the Directors of the Bureaux, to identify new activities to be undertaken by ITU to support the developing countries to achieve sustainable development through telecommunications and ICT,

resolves

1 that the action plan annexed to this resolution, having the objective of bridging the standardization gap between developed and developing countries, should be continued and be reviewed on an annual basis to take into account the requirements of developing countries;

2 that ITU-T, in collaboration with the other Sectors, as appropriate, shall develop a programme to:

i) assist developing countries in developing methods that facilitate the process of linking innovations to the standardization process;

ii) assist developing countries in developing means to align their national industrial and innovation strategies towards the goal of achieving highest impact on their socio-economic ecosystems;

3 to request the Director of TSB to strengthen cooperation and coordination with the relevant regional organizations, in particular those of the developing countries;

4 that, subject to Council approval, there should be free online access to the manuals, handbooks, directives and other ITU material related to understanding and implementation of ITU-T Recommendations, particularly in the area of planning, operation and maintenance of telecommunications networks;

5 to support, within available or otherwise contributed resources, and on a case-by-case basis, the coordinated creation of regional groups of ITU-T study groups, and encourage cooperation and collaboration of these groups with other regional standardization entities;

6 to maintain in the annual budget of the Union a separate expenditure line item for bridging the standardization gap activities, while at the same time voluntary contributions should be further encouraged;

7 that the responsibilities of all vice-chairmen and chairmen from developing countries appointed to leadership positions in TSAG and in ITU-T study groups include, among others:

i) closely work with ITU members in the region in order to mobilize them to participate in ITU standardization activities to assist in bridging the standardization gap;

ii) make mobilization and participation reports to the ITU body concerning the region;

iii) prepare and submit a mobilization programme for the regions that they represent at the first meeting of TSAG or a study group and send a report to TSAG,

further resolves that ITU regional offices

1 be engaged in the activities of TSB in order to promote and coordinate standardization activities in their regions to support the implementation of the relevant parts of this resolution and to carry out the objectives of the action plan, and launch campaigns to attract new Sector Members, Associates and Academia from developing countries to join ITU-T;

2 assist the vice-chairmen, within the offices' budgets, in mobilizing members within their respective regions for increased standardization participation;

3 organize and coordinate the activities of the regional groups of ITU-T study groups;

4 provide the necessary assistance to the regional groups of ITU-T study groups;

5 provide assistance to the regional telecommunication organizations for the setting-up and management of regional standardization bodies,

invites the Council

1 to increase the ITU-T budgetary provisions for fellowships, interpretation and translation of documents for meetings of TSAG, ITU-T study groups and regional groups of ITU-T study groups;

2 to encourage the establishment of a specialized panel for stimulating ICT innovations, under ITU-T, with the objective of enhancing global collaborative innovation in order to bridge the standardization gap between developed and developing countries and to identify and support innovations from developing countries;

3 to report, as appropriate, on this matter to the 2014 plenipotentiary conference;

4 to advise the 2014 plenipotentiary conference on its implementation of *invites the Council*,

instructs the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of Telecommunication Development Bureau and the Radiocommunication Bureau, within available resources

1 to continue implementing the objectives of the action plan annexed to this resolution;

2 to assist developing countries with their studies, particularly in respect of their priority questions and towards developing and implementing ITU-T Recommendations;

3 to continue the activities of the implementation group established within TSB to organize, mobilize resources, coordinate efforts and monitor work related to this resolution and the associated action plan;

4 to take the appropriate actions in respect of each new ITU-T Recommendation having implementation aspects, and consider the need for developing implementation guidelines;

5 to arrange for the drafting of a set of guidelines on the application of ITU Recommendations at national level, having regard to the provisions of Resolution 168 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

6 to provide the support needed for regional mobilization for standardization;

7 to carry out the necessary studies on the role of innovation management and innovation stimulation programmes on bridging the standardization gap between the developed and developing countries;

8 to include in the TSB budget proposal to the ITU Council funds identified for the implementation of this resolution, taking into account financial constraints and existing and planned BDT activities;

9 to assist in institutionalizing the terms of reference, specified in *resolves* 7 above in the working of TSAG and ITU-T study groups, so as to ensure that the specific responsibilities are made known to aspiring vice-chairmen before their appointment;

10 to report on the implementation of this plan to future world telecommunication standardization assemblies and plenipotentiary conferences, with a view to reviewing this resolution and introducing the appropriate amendments in the light of implementation outcomes, as well as the budgetary adjustments needed to implement this resolution;

11 to provide assistance to developing countries, if requested, in developing guidelines for use by the national entities of the requesting country in order to enhance their participation in ITU-T study groups, with the assistance of the ITU regional offices, for bridging the standardization gap;

12 to enhance use of electronic channels such as webinars or e-learning for education and training on implementation of ITU-T Recommendations;

13 to provide all necessary support for creating and ensuring the smooth functioning of the regional groups;

14 to take all necessary measures to facilitate the organization of meetings and workshops of the regional groups;

15 to report on the effectiveness of the regional groups to the ITU Council;

16 to conduct workshops and seminars, as appropriate, to disseminate information and increase understanding of new Recommendations, in particular for developing countries,

instructs ITU-T study groups and the Telecommunication Standardization Advisory Group

1 to be actively involved in the implementation of the programmes set forth in the action plan annexed to this resolution;

2 to coordinate joint meetings of regional groups of ITU-T study groups,

further instructs the study groups

1 to take account of the specific characteristics of the telecommunication environment of the developing countries in the process of establishing standards in the fields of planning, services, systems, operation, tariffs and maintenance, and to provide solutions/options relevant to developing countries wherever possible;

2 to take appropriate steps to have studies carried out on questions connected with standardization which are identified by world telecommunication development conferences;

3 to continue liaising with study groups of the ITU Telecommunication Development Sector, where appropriate, when developing new or revised ITU-T Recommendations, on the specific needs and requirements of developing countries, in order to broaden the appeal and applicability of the Recommendations in those countries,

invites the Director of the Telecommunication Standardization Bureau

1 to work closely with the Directors of BDT and the Radiocommunication Bureau (BR) in order to encourage the formation of partnerships under the patronage of ITU-T as one of the means for financing the action plan;

2 to consider, whenever possible, holding workshops concurrently with meetings of the ITU-T regional groups, in coordination and collaboration with the Director of BDT,

invites regions and their Member States

1 to pursue the creation of regional groups of parent ITU-T study groups in their respective regions in accordance with *resolves* 5 of this resolution and Resolution 54 (Rev. Dubai, 2012) of this assembly, and to support their meetings and activities, as appropriate, in coordination with TSB;

2 to take an active part in the activities of the ITU-T regional groups and support regional organizations in setting up regional frameworks for the development of standardization activities;

3 to create regional standardization bodies, as appropriate, and encourage joint and coordinated meetings of such bodies with the regional groups of the ITU-T study groups in the respective regions, so that these standardization bodies act as an umbrella for such regional group meetings;

4 to develop draft terms of reference and working methods for regional groups, which are to be approved by the parent study group,

encourages Member States and Sector Members

to take the objectives set out in the action plan in the annex to this resolution into account in their participation in ITU-T.

ANNEX
(to Resolution 44)

Action plan for the implementation of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference

I Programme 1: Strengthening standard-making capabilities

1) Objective

- To improve the standard-making capabilities of developing countries.

2) Activities

- Developing guidelines to assist developing countries in their involvement in ITU-T activities, covering, but not limited to, ITU-T working methods, formulating draft Questions and making proposals.

- Creating methods to increase the access of developing countries to essential technical information in order to enhance their knowledge and capacity (i) to implement global standards, (ii) to effectively contribute to the work of ITU-T, (iii) to include their own specificities and necessities in the global standard-making process, and (iv) to influence global standard-making discussions by having active roles in ITU-T study groups.

- Improving procedures and electronic tools for remote participation, in order to enable experts in developing countries to participate actively in ITU-T meetings (including TSAG, study groups, joint coordination activities, global standardization initiatives, among others), workshops and training, from their own countries.

- Conducting consultancy projects designed to support developing countries in the development of standardization plans, strategies, policies, etc. The outputs should be further transformed into best practices.

- Developing methods, tools and indicators for accurate measurement of the results and the level of effectiveness of the efforts and activities applied in bridging the standardization gap.

- Working with Sector Members, and in particular manufacturers, academia, and research and development organizations, on exchanging information on new technologies and requirements of developing countries, and on providing technical assistance to encourage the establishment of standardization programmes in academia and research and development organizations in the field of ICT.

II Programme 2: Assisting developing countries with respect to the application of standards

1) Objective

- Assisting developing countries in:
  - Ensuring that developing countries have a clear understanding of ITU-T Recommendations.
  - Enhancing the application of ITU-T Recommendations in developing countries.

2) Activities

- To assist developing countries in:
  - Establishing a standardization secretariat to coordinate standardization activities and participation in ITU-T study groups.
  - Determining whether their existing national standards are consistent and in accordance with the current ITU-T Recommendations.
- Actions to be performed by TSB with BDT cooperation:
  - Developing a set of guidelines on how to apply ITU-T Recommendations, in particular on manufactured products and interconnection, with emphasis on Recommendations having regulatory and policy implications.
  - Providing advice and assistance on how to better utilize and adopt ITU-T Recommendations in national standards.
  - Compiling and maintaining a database containing information on new technologies that are standardized, as well as products that are compliant with ITU-T Recommendations.
  - Organizing capacity-building events on the application of specific Recommendations and on methods of examining compliance of manufactured products with these Recommendations.
  - Improving and promoting the use of an electronic forum for "questions and answers on standards" where developing countries can raise questions concerning their understanding and application of Recommendations and seek advice from study group experts.

III Programme 3: Human resources capacity building

1) Objective

- To increase the human resources capacity of developing countries in ITU-T and national standardization activities.

2) Activities

- Promoting events, seminars, workshops and study group meetings at the regional and global levels to build capacities regarding matters relevant to standardization and the development of telecommunications and ICT in developing countries.

- In close collaboration with BDT and BR, providing training courses on standardization to developing countries.
- Providing more internship, secondment and short-term employment, etc., opportunities for developing countries at ITU.
- Encouraging the election of more candidates from developing countries to ITU-T study groups chairmanship and vice-chairmanship positions.
- Encouraging secondment and short-term employment opportunities for experts from developing countries in test laboratories of international standards development organizations (SDOs) and manufacturers, in particular in the area of conformance and interoperability testing.
- Organizing in-depth tutorials on implementation of ITU-T Recommendations.
- Providing, through TSB, fellowships to eligible countries to attend relevant ITU-T meetings.

IV Programme 4: Fundraising for bridging the standardization gap

a) Contributions to the action plan through the following forms of partnerships and other means:

- Partnership contributions
- Additional budget allocated by ITU
- Voluntary contributions by developed countries
- Voluntary contributions by the private sector
- Voluntary contributions by others.

b) Management of funds by TSB:

- The Director of TSB, in close coordination with the Director of BDT, shall be responsible for the management of funds raised as above, which shall be used principally for achieving the objectives of these programmes.

c) Principles for the use of funds:

- Funds are to be used for ITU-related activities including, but not limited to, assistance and consultation, training of representatives of developing countries in ITU-T activities, as well as studying compliance examination, interconnection and interoperability programmes for developing countries (but not for the purchase of equipment).

RESOLUTION 45 (Rev. Dubai, 2012)

Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

noting

a) that the ITU Telecommunication Standardization Sector (ITU-T) is the pre-eminent global standardization body, comprising administrations, equipment vendors, operators and regulators;

b) that, under Article 17 of the ITU Constitution, ITU-T, bearing in mind the particular concerns of the developing countries[1] shall fulfil the purposes of the Union by studying technical, operating and tariff questions and adopting Recommendations on them with a view to standardizing telecommunications on a worldwide basis;

c) that, under Article 13 of the ITU Convention, the World Telecommunication Standardization Assembly (WTSA) is required, *inter alia*, to approve the programme of work for ITU-T for each study period and to determine the priority, urgency, estimated financial implications and time-scale for the completion of studies,

considering

a) Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, which resolves that WTSA shall adequately address strategic issues in standardization, and encourages Member States, ITU-T Sector Members and study group chairmen and vice-chairmen to concentrate, *inter alia*, on the identification and analysis of strategic issues in standardization in their preparations for WTSA so as to facilitate the work of the assembly;

b) that the interests of developing countries are promoted by ensuring a coordinated approach to standardization where strategic standardization issues are concerned;

c) that WTSA has agreed to a new ITU-T study group structure and improvements to ITU-T's working methods that will assist ITU-T in meeting the standardization challenges of the 2013-2016 study period,

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

recognizing

a) that effective coordination between study groups is critical to ITU-T's ability to meet emerging standardization challenges and the needs of its membership;

b) that ITU-T study groups are responsible for developing Recommendations on technical, operating and tariff questions on the basis of contributions submitted by the membership;

c) that the effective coordination of standardization activities would assist in meeting the objectives of Resolutions 122 and 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

d) that operational coordination can be effected by means of joint coordination activities (JCAs), joint rapporteur group meetings, liaison statements between study groups and the study group chairmen's meetings organized by the Director of the Telecommunication Standardization Bureau;

e) that effective coordination is facilitated by taking a top-down approach to the coordination of work between study groups, including the identification of linkages between related work items;

f) that the Telecommunication Standardization Advisory Group (TSAG) can play an important role in ensuring cross-study group coordination on standardization issues, including the measurement of standardization progress against agreed milestones;

g) that it is appropriate for WTSA, as the highest body in ITU-T, to identify strategic standardization issues for each study period,

bearing in mind

that the coordination of standardization activities is particularly important for high-priority standardization issues, including, for example:

a) next-generation networks (NGN) evolution and future networks;

b) security (including cybersecurity);

c) telecommunications for disaster relief systems, including network resilience and recovery;

d) smart grid and home networking;

e) intelligent transport systems (ITS);

f) Internet of things (IoT)/machine-to-machine (M2M) communication;

g) cloud computing;

h) Internet-related issues;

i) conformance and interoperability testing,

emphasizing

that coordination should serve to improve the effectiveness of ITU-T activities and should not limit the authority of each study group to develop Recommendations based on contributions from the membership,

resolves

that the coordination of ITU-T activities in regard to high-priority standardization issues and work related to more than one study group should ensure:

i) the identification of high-level objectives and priorities for ITU-T studies from a global viewpoint;

ii) cooperation between study groups, including the avoidance of duplication of work and the identification of linkages between related work items;

iii) the planned coordination of time-frames, deliverables, objectives and milestones for standardization activities;

iv) that the interests of developing countries are taken into account and that their involvement in these activities is encouraged and facilitated;

v) cooperation and coordination with the ITU Radiocommunication and Telecommunication Development Sectors and with other, external, standardization bodies,

instructs the Telecommunication Standardization Advisory Group

1 to take an active role in ensuring coordination between study groups, particularly on high-priority standardization issues that are being studied in more than one study group, including by inviting coordination groups to hold the necessary meetings to achieve the objectives set for them;

2 to take into account, and implement as necessary, advice given to TSAG by other groups established in the interests of effective coordination on high-priority and joint standardization topics.

RESOLUTION 47 (Rev. Dubai, 2012)

Country code top-level domain names

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) relevant parts of Resolution 102 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

b) Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

c) relevant outcomes of the two phases of the World Summit on the Information Society;

d) the evolving role of the World Telecommunication Standardization Assembly, in accordance with Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

considering

a) that issues persist in some cases with respect to the delegation of country code top-level domain names (ccTLD) to entities designated by national authorities;

b) that Member States represent the interests of the population of the country or territory for which a ccTLD has been delegated, as noted in *recognizing g)* of Resolution 102 (Rev. Guadalajara, 2010);

c) that countries should not be involved in decisions regarding another country's ccTLD, as noted in *recognizing i)* of Resolution 102 (Rev. Guadalajara, 2010);

d) that intergovernmental organizations have had, and should continue to have, a facilitating role in the coordination of Internet-related public policy issues;

e) that international organizations have also had, and should continue to have, an important role in the development of Internet-related technical standards and relevant policies;

f) that ITU has a record of successfully handling similar issues,

instructs ITU-T Study Group 2

to continue studies, and to work with Member States and Sector Members, in their respective roles, recognizing the activities of other appropriate entities, to review Member States' ccTLD experiences,

instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the above and to report to the ITU Council annually regarding the progress achieved in this area,

invites Member States

to contribute to these activities,

further invites Member States

to take appropriate steps within their national legal frameworks to ensure that issues related to delegation of country code top-level domains are resolved.

RESOLUTION 48 (Rev. Dubai, 2012)

Internationalized (multilingual) domain names

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) relevant parts of Resolution 102 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

b) Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

c) relevant outcomes of the two phases of the World Summit on the Information Society (WSIS);

d) the evolving role of the World Telecommunication Standardization Assembly, in accordance with Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

e) the ITU strategic plan for the period 2008-2011 reflecting the important role of multilingualism in enabling the full participation of all countries in the work of ITU, in building a global information society that is open to all, and in achieving the goals and objectives of WSIS,

considering

a) that there needs to be further in-depth discussion of the political, economic and technical issues related to internationalized (multilingual) domain names arising out of the interaction between national sovereignty and the need for international coordination and harmonization;

b) that intergovernmental organizations have had, and should continue to have, a facilitating role in the coordination of Internet-related public policy issues;

c) that international organizations have also had, and should continue to have, an important role in the development of Internet-related technical standards and relevant policies;

d) that the ITU Telecommunication Standardization Sector (ITU-T) has a record of successfully handling similar issues in a timely manner, especially as to the use of non-Latin character sets;

e) the ongoing activities of other relevant organizations,

resolves to instruct ITU-T Study Group 16 and other relevant study groups

to continue to study internationalized (multilingual) domain names, and to continue to liaise and cooperate with appropriate entities, whether intergovernmental or non-governmental, in this area,

instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the above and to report to the ITU Council annually regarding the progress achieved in this area,

invites Member States, Sector Members and concerned regional groups

to contribute to these activities.

RESOLUTION 49 (Rev. Dubai, 2012)

ENUM

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, in particular:

i) the continuing progress towards integration of telecommunications and the Internet;

ii) the existing role and sovereignty of ITU Member States with respect to allocation and management of their country code numbering resources as enshrined in Recommendation ITU-T E.164;

iii) the paragraph instructing the Secretary-General and the Directors of the Bureaux to take any necessary action to ensure the sovereignty of ITU Member States with regard to Recommendation ITU-T E.164 numbering plans whatever the application in which they are used;

b) the evolving role of the World Telecommunication Standardization Assembly, as reflected in Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

noting

a) the work of Study Group 2 of the ITU Telecommunication Standardization Sector (ITU-T) concerning ENUM;

b) the current unresolved issues concerning administrative control of the highest level Internet domain which will be used for ENUM,

resolves to instruct ITU-T Study Group 2

1 to study how ITU could have administrative control over changes that could relate to the international telecommunication resources (including naming, numbering, addressing, and routing) used for ENUM;

2 to evaluate the current interim procedure for ENUM delegation, and report back to the Director of the Telecommunication Standardization Bureau,

instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the above and to report to the ITU Council annually regarding the progress achieved in this area,

invites Member States

to contribute to these activities,

further invites Member States

to take appropriate steps within their national legal frameworks to ensure proper implementation of this resolution.

RESOLUTION 50 (Rev. Dubai, 2012)

Cybersecurity

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 130 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the role of ITU in building confidence and security in the use of information and communication technologies (ICT);

b) Resolution 174 (Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues relating to the risk of illicit use of ICT;

c) Resolution 179 (Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in child online protection;

d) Resolution 181 (Guadalajara, 2010) of the Plenipotentiary Conference, on definitions and terminology relating to building confidence and security in the use of ICT;

e) Resolutions 55/63 and 56/121 of the United Nations General Assembly, which established the legal framework on countering the criminal misuse of information technologies;

f) Resolution 57/239 of the United Nations General Assembly, on the creation of a global culture of cybersecurity;

g) Resolution 58/199 of the United Nations General Assembly, on the creation of a global culture of cybersecurity and the protection of essential information infrastructures;

h) Resolution 41/65 of the United Nations General Assembly, on principles relating to remote sensing of the Earth from outer space;

i) Resolution 45 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC);

j) Resolution 52 (Rev. Dubai, 2012) of this assembly, on countering and combating spam;

k) Resolution 58 (Rev. Dubai, 2012) of this assembly, on encouraging the creation of national computer incident response teams, particularly in developing countries[1],

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

considering

a) the crucial importance of ICT infrastructure to practically all forms of social and economic activity;

b) that the legacy public switched telephone network (PSTN) has a level of inherent security properties because of its hierarchical structure and built-in management systems;

c) that IP networks provide reduced separation between user components and network components if adequate care is not taken in the security design and management;

d) that the converged legacy networks and IP networks are therefore potentially more vulnerable to intrusion if adequate care is not taken in the security design and management of such networks;

e) that there are cyberincidents caused by cyberattacks, for example malicious or thrill-seeker intrusions using malware (such as worms and viruses), distributed by various methods, for example distribution by web and bot-infected computers;

f) that in order to protect global telecommunication/ICT infrastructures from the threats and challenges of the evolving cybersecurity landscape, coordinated national, regional and international action is required to protect from and respond to various forms of impairing events;

g) that the ITU Telecommunication Standardization Sector (ITU-T) has a role to play within its mandate and competencies in *considering f)*,

considering further

a) that Recommendation ITU-T X.1205 provides a definition, a description of technologies, and network protection principles;

b) that Recommendation ITU-T X.805 provides a systematic framework for identifying security vulnerabilities, and Recommendation ITU-T X.1500 provides the cybersecurity information exchange (CYBEX) model and discusses techniques that could be used to facilitate the exchange of cybersecurity information;

c) that ITU-T and the Joint Technical Committee for Information Technology (JTC 1) of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) already have a significant body of published materials and ongoing work that is directly relevant to this topic, which needs to be considered,

recognizing

a) the relevant outcomes of the World Summit on the Information Society (WSIS) identified ITU as the facilitator and moderator for Action Line C5 (Building confidence and security in the use of ICTs);

b) the *resolves* paragraph of Resolution 130 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on strengthening the role of ITU in building confidence and security in the use of information and communication technologies, and the instruction to intensify work with high priority within the ITU-T study groups;

c) that Programme 2, on cybersecurity, ICT applications and IP-based network related issues adopted by WTDC (Hyderabad, 2010) includes cybersecurity as one of its priority activities and relevant activities to be undertaken by the Telecommunication Development Bureau (BDT), and that Question 22/1 of the ITU Telecommunication Development Sector (ITU-D) addresses the issue of securing information and communication networks through the identification of best practices for developing a culture of cybersecurity, and Resolution 45 (Rev. Hyderabad, 2010), on mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam, was adopted;

d) that the ITU Global Cybersecurity Agenda (GCA) promotes international cooperation aimed at proposing strategies for solutions to enhance confidence and security in the use of ICTs,

recognizing further

a) that cyberattacks such as phishing, pharming, scan/intrusion, distributed denials of service, web-defacements, unauthorized access, etc., are emerging and having serious impacts;

b) that botnets are used to distribute bot-malware and carry out cyberattacks;

c) that sources of attacks are sometimes difficult to identify (for example, attacks using spoofed IP addresses);

d) that cybersecurity is one of the elements for building confidence and security in the use of telecommunications/ICTs;

e) that, in accordance with Resolution 181 (Guadalajara, 2010), it is recognized that it is important to study the issue of terminology related to building confidence and security in the use of ICTs, that this base set needs to include other important issues in addition to cybersecurity and that the definition of cybersecurity may need to be modified from time to time to reflect changes in policy;

f) that Resolution 181 (Guadalajara, 2010) resolved to take into account the definition of the term cybersecurity approved in Recommendation ITU-T X.1205 for use in ITU activities related to building confidence and security in the use of ICTs;

g) that, as recognized in Resolution 181 (Guadalajara, 2010), ITU-T Study Group 17 is responsible for developing the core Recommendations on telecommunication and ICT security,

noting

a) the vigorous activity and interest in the development of telecommunication/ICT security standards and Recommendations in Study Group 17, the lead ITU-T study group on security, and in other standardization bodies, including the Global Standards Collaboration (GSC) group;

b) that there is a need for national, regional and international strategies and initiatives to be harmonized to the extent possible, in order to avoid duplication and to optimize the use of resources;

c) that cooperation and collaboration among organizations addressing security issues can promote progress and contribute to building and maintaining a culture of cybersecurity;

d) that, as recognized in Resolution 130 (Rev. Guadalajara, 2010), a national IP-based public network security centre for developing countries is under study by Study Group 17, and some work has been completed in this area, including the ITU-T X.800 – ITU-T X.849-series of Recommendations and Supplements thereto,

resolves

1 that all ITU-T study groups continue to evaluate existing and evolving new Recommendations, and especially signalling and telecommunication protocol Recommendations, with respect to their robustness of design and potential for exploitation by malicious parties to interfere destructively with their deployment in the global information and telecommunication infrastructure, develop new Recommendations for emerging security issues and take into account new services and applications to be supported by the global telecommunication/ICT infrastructure (e.g. cloud computing, smart grid and intelligent transport systems, which are based on telecommunication/ICT networks);

2 that ITU-T continue to raise awareness, within its area of operation and influence, of the need to defend information and telecommunication systems against the threat of cyberattack, and continue to promote cooperation among appropriate international and regional organizations in order to enhance exchange of technical information in the field of information and telecommunication network security;

3 that ITU-T should work closely with ITU-D, particularly in the context of Question 22/1;

4 that, in assessing networks and protocols for security vulnerabilities and facilitation of exchanging cybersecurity information, ITU-T Recommendations, including the ITU-T X-series of Recommendations and Supplements thereto, among them ITU-T X.805, ITU-T X.1205, ITU-T X.1500, ISO/IEC standards and other relevant deliverables from other organizations, be taken into consideration and applied as appropriate;

5 that ITU-T continue work on the development and improvement of terms and definitions related to building confidence and security in the use of telecommunications/ICTs, including the term cybersecurity;

6 that parties concerned are invited to work together to develop standards and guidelines in order to protect against cyberattacks, and facilitate tracing the source of an attack;

7 that global, consistent and interoperable processes for sharing incident-response related information should be promoted;

8 that all ITU-T study groups continue to provide regular reports on security of telecommunications/ICT to the Telecommunication Standardization Advisory Group (TSAG) on progress in evaluating existing and evolving new Recommendations;

9 that ITU-T study groups continue to liaise with standards development organizations and other bodies active in this field, such as ISO/IEC JTC1, the Organisation for Economic Co-operation and Development (OECD), the Asia-Pacific Economic Cooperation Telecommunication and Information Working Group (APEC-TEL) and the Internet Engineering Task Force (IETF);

10 that Study Group 17 continue its work on the issues raised in Resolution 130 (Rev. Guadalajara, 2010), and on the ITU-T X-series of Recommendations, including Supplements as appropriate,

instructs the Director of the Telecommunication Standardization Bureau

1 to prepare, in building upon the information base associated with the "ICT Security Standards Roadmap" and the ITU-D efforts on cybersecurity, and with the assistance of other relevant organizations, an inventory of national, regional and international initiatives and activities to promote, to the maximum extent possible, the worldwide harmonization of strategies and approaches in this critically important area;

2 to report annually to the ITU Council, as specified in Resolution 130 (Guadalajara, 2010), on progress achieved in the actions outlined above;

3 to continue to recognize the role played by other organizations with experience and expertise in the area of security standards, and coordinate with those organizations as appropriate,

further instructs the Director of the Telecommunication Standardization Bureau

1 to continue to follow up WSIS activities on building confidence and security in the use of ICTs, in cooperation with relevant stakeholders, as a way to share information on national, regional and international and non-discriminatory cybersecurity-related initiatives globally;

2 to cooperate with BDT in relation to any item concerning cybersecurity in accordance with Resolution 45 (Rev. Hyderabad, 2010),

3 to continue to cooperate with the Secretary-General's Global Cybersecurity Agenda (CGA) and with IMPACT, FIRST and other global or regional cybersecurity projects, as appropriate, to develop relationships and partnerships with various regional and international cybersecurity-related organizations and initiatives, as appropriate, and to invite all Member States, particularly developing countries, to take part in these activities and to coordinate and cooperate with these different activities;

4 taking into account Resolution 130 (Rev. Guadalajara 2010), to work collaboratively with the other Directors of the Bureaux to support the Secretary-General in preparing a document relating to a possible memorandum of understanding (MoU) (according to Resolution 45 (Rev. Hyderabad, 2010)) among interested Member States to strengthen cybersecurity and combat cyberthreats in order to protect developing countries and any country interested in acceding to this possible MoU,

invites Member States, Sector Members, Associates and academia, as appropriate

to cooperate and participate actively in the implementation of this resolution and the associated actions.

RESOLUTION 52 (Rev. Dubai, 2012)

Countering and combating spam

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) relevant provisions of the basic instruments of ITU;

b) that the Declaration of Principles of the World Summit on the Information Society (WSIS) states in § 37 that "Spam is a significant and growing problem for users, networks and the Internet as a whole. Spam and cybersecurity should be dealt with at appropriate national and international levels";

c) that the WSIS Plan of Action states in § 12 that "Confidence and security are among the main pillars of the information society", and calls for "appropriate action on spam at national and international levels",

recognizing further

a) the relevant parts of Resolution 130 (Rev. Guadalajara, 2010) and Resolution 174 (Guadalajara, 2010) of the Plenipotentiary Conference;

b) that developing Recommendations to combat spam falls within Objective 4 of the strategic plan for the Union for 2012-2015 (Part I, § 5) set out in Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

c) the report of the chairman of the two ITU WSIS thematic meetings on countering and combating spam, which advocated a comprehensive approach to combating spam, namely:

i) strong legislation

ii) the development of technical measures

iii) the establishment of industry partnerships to accelerate the studies

iv) education

v) international cooperation,

considering

a) that exchanging e-mails and other telecommunications over the Internet has become one of the main means of communication between people around the world;

b) that there are currently a variety of definitions for the term “spam”;

c) that spam has become a widespread problem causing potential loss of revenue to Internet service providers, telecommunication operators, mobile telecommunication operators and business users;

d) that countering spam by technical means burdens affected entities, including network operators and service providers, as well as users who unwillingly receive such spam, with significant investments in networks, facilities, terminal equipments and applications;

e) that spam creates problems of information and telecommunication network security, and is increasingly being used as a vehicle for phishing and spreading viruses, worms, spyware and other forms of malware, etc.;

f) that spamming is used for criminal, fraudulent or deceptive activities;

g) that spam is a global problem that requires international cooperation in order to find solutions;

h) that addressing the issue of spam is a matter of urgency;

i) that many countries, in particular developing countries[1], need help when it comes to countering spam;

j) that relevant Recommendations of the ITU Telecommunication Standardization Sector (ITU-T) and relevant information from other international bodies are available which could provide guidance for future development in this area, particularly with regard to lessons learned;

k) that technical measures to counter spam represent one of the approaches mentioned in *recognizing further c)* above,

noting

the important technical work carried out to date in ITU-T Study Group 17, and in particular Recommendations ITU-T X.1231, ITU-T X.1240, ITU-T X.1241, ITU-T X.1242, ITU-T X.1243, ITU-T X.1244 and ITU-T X.1245,

resolves to instruct the relevant study groups

1 to continue to support ongoing work, in particular in Study Group 17, related to countering spam (e.g. e-mail) and to accelerate their work on spam in order to address existing and future threats within the remit and expertise of ITU-T, as appropriate;

2 to continue collaboration with the relevant organizations (e.g. the Internet Engineering Task Force (IETF)), in order to continue developing, as a matter of urgency, technical Recommendations with a view to exchanging best practices and disseminating information through joint workshops, training sessions, etc.,

further instructs ITU-T Study Group 17

to report regularly to the Telecommunication Standardization Advisory Group on progress under this resolution,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

instructs the Director of the Telecommunication Standardization Bureau

1 to provide all necessary assistance with a view to expediting such efforts;

2 to initiate a study – including sending a questionnaire to the ITU membership –indicating the volume, types (e.g. e-mail spam, SMS spam, spam in IP-based multimedia applications) and features (e.g. different major routes and sources) of spam traffic, in order to help Member States and relevant operating agencies identify such routes, sources and volumes and estimate the amount of investment in facilities and other technical means to counter and combat such spam, taking into account work that has already been carried out;

3 to continue to cooperate with the Secretary-General's initiative on cybersecurity and with the Telecommunication Development Bureau in relation to any item concerning cybersecurity under Resolution 45 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference, and to ensure coordination among these different activities,

invites Member States, Sector Members and Associates

to contribute to this work,

further invites Member States

to take appropriate steps to ensure that appropriate and effective measures are taken within their national and legal frameworks to combat spam and its propagation.

RESOLUTION 54 (Rev. Dubai, 2012)

Creation of, and assistance to, regional groups

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference instructs the Secretary-General and the Directors of the three Bureaux to work closely with each other in pursuing initiatives that assist in bridging the standardization gap between developing[1] and developed countries;

b) that the work of certain study groups, particularly in relation to, among other things, tariff and accounting principles, next-generation networks (NGN) and future networks (FN), security, quality, mobility and multimedia, are of considerable strategic significance for developing countries during the next study cycle,

recognizing

a) the relatively high level of participation and involvement of developing countries in the meetings of Study Groups 2, 3, 5 and 12 of the ITU Telecommunication Standardization Sector (ITU-T), and their growing levels of participation in other study groups;

b) that regional groups have been established within Study Groups 2, 3, 5 and 12;

c) the satisfactory results obtained by the regional approach within the framework of the activities of Study Groups 2, 3, 5 and 12;

d) that the activities of most of these regional groups have become increasingly important;

e) the successful establishment of regional groups under Study Group 3, which leads studies relating to tariff and accounting matters (including costing methodologies) for international telecommunication services and study of related telecommunication economic, accounting and policy issues;

f) the sustainability of the regional groups of Study Group 3, and the encouraging start of regional groups[2] established in accordance with this resolution,

noting

a) the need to increase the participation of developing countries in the work of study groups, with a view to ensuring that their specific needs and concerns are better taken into account;

b) the need to improve and strengthen the organization and working methods of the ITU-T study groups in the interests of enhancing the participation of developing countries;

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1 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 Regional groups are open, without exclusion, to the participation of all members belonging to the specific region where the regional group is created.

c) the importance of having appropriate consultative frameworks for the formulation and study of Questions, the preparation of contributions and capacity building;

d) the need for developing countries to be more present and more active within ITU-T's standardization forums;

e) the need to encourage more inclusive participation in the work of ITU-T, e.g. by academia and experts working in the field of standardization of telecommunication/information and communication technologies, particularly from developing countries;

f) the budgetary limitations, especially in developing-country institutions, for attendance at ITU-T events of specific interest to them,

bearing in mind

that the application of the organizational set-up and working methods of Study Groups 2, 3, 5 and 12 in some of the other study groups could serve to expand and improve the level of developing country participation in standardization activities and contribute to achieving the objectives of Resolution 123 (Rev. Guadalajara, 2010),

taking into consideration

a) the experiences and lessons learned by the regional groups of Study Group 3, and its successors, the regional groups of Study Groups 2, 5 and 12, regarding the operational as well as organizational set-up and working methods;

b) the specific process for approving Recommendations foreseen for the regional groups of Study Group 3 in clause 9.2.1 of Resolution 1 (Rev. Dubai, 2012) of this assembly,

recognizing further

a) that a common and coordinated approach in regard to standardization could serve to foster the promotion of standardization activities in developing countries;

b) that joint meetings of regional groups of different ITU-T study groups, in particular if concatenated with a regional workshop and/or a meeting of a regional standardization body, could encourage the participation of developing countries in these meetings and increase the effectiveness of such joint meetings;

c) that in developing countries, a few standardization experts are usually responsible for handling numerous standardization areas within their administrations,

resolves

1 to support, on a case-by-case basis, the coordinated creation of regional groups of ITU-T study groups, and to encourage cooperation and collaboration of these groups with regional standardization entities;

2 to invite the Council to consider providing support for the regional groups as appropriate,

invites the regions and their Member States

1 to pursue the creation of regional groups of parent ITU-T study groups in their respective regions in accordance with *resolves* 1 of this resolution, and to support their meetings and activities, as appropriate, in coordination with TSB;

2 to develop draft terms of reference and working methods for these regional groups, which are to be approved by the parent study group;

3 to create regional standardization bodies, as appropriate, and encourage joint and coordinated meetings of such bodies with the regional groups of ITU-T study groups in their respective regions, so that these standardization bodies act as an umbrella for such regional group meetings,

invites the regional groups thus created

1 to disseminate information about telecommunication standardization and encourage the involvement of developing countries in standardization activities in their regions, and to submit written contributions to the parent study group reflecting the priorities of their respective regions;

2 to cooperate closely with the relevant respective regional organizations,

instructs study groups and the Telecommunication Standardization Advisory Group

to coordinate joint meetings of the regional groups of ITU-T study groups,

instructs the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau, within the allocated or contributed resources that are available

1 to provide all necessary support for creating and ensuring the smooth functioning of the regional groups;

2 to consider holding, whenever possible, workshops concurrently with meetings of the ITU-T regional groups;

3 to take all necessary measures to facilitate the organization of meetings and workshops of the regional groups,

calls upon the Director of the Telecommunication Standardization Bureau

to cooperate with the Director of the Telecommunication Development Bureau in order to:

i) continue to provide specific assistance to the current regional groups of Study Group 3 as well as other regional groups;

ii) encourage the continuing development of computerized application tools related to their cost methodology by the members of the regional groups of Study Group 3;

iii) take appropriate steps to facilitate meetings of the current and future regional groups of Study Group 3 and promote the necessary synergies between the two Sectors,

further invites the regional groups thus created

to cooperate closely with the relevant respective regional organizations, and to report on their work in their regions.

RESOLUTION 55 (Rev. Dubai, 2012)

Mainstreaming a gender perspective[1] in ITU Telecommunication Standardization Sector activities

(Florianópolis, 2004; Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

noting

a) the initiative taken by the ITU Telecommunication Development Sector (ITU-D) at the World Telecommunication Development Conference (WTDC) in adopting Resolution 7 (Valletta, 1998), transmitted to the Plenipotentiary Conference (Minneapolis, 1998), which resolved that a task force on gender issues be established;

b) the endorsement of that resolution by the Plenipotentiary Conference in its Resolution 70 (Minneapolis, 1998), in which the conference resolved, *inter alia*, to incorporate a gender perspective in the implementation of all programmes and plans of ITU;

c) Resolution 44 (Istanbul, 2002) of WTDC, which resolved that ITU-D should include gender initiatives in each of the programmes established under the Istanbul Action Plan;

d) Resolution 55 (Doha, 2006) of WTDC, endorsing a specific action plan for the promotion of gender equality towards all-inclusive information societies;

e) Resolution 55 (Rev. Johannesburg, 2008) of the World Telecommunication Standardization Assembly (WTSA), in which it is resolved that the ITU Telecommunication Standardization Sector (ITU-T) should encourage the inclusion of a gender policy, including the use of gender-neutral language, in the work of all ITU-T activities and groups, including the Telecommunication Standardization Advisory Group (TSAG) and the ITU-T study groups;

f) Resolution 70 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on gender mainstreaming in ITU and promotion of gender equality and the empowerment of women through information and communication technologies (ICTs),

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[1] "Gender perspective": Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of design, implementation, monitoring and evaluation so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality. (Source: Report of the Inter-Agency Committee on Women and Gender Equality, third session, New York, 25-27 February 1998).

noting further

a) Resolution 1187, adopted by the Council at its 2001 session, on a gender perspective in ITU human resources management, policy and practice, which requests the Secretary-General to allocate appropriate resources, within existing budgetary limits, to establish a gender unit with full-time dedicated staff;

b) Resolution E/2001/L.29, adopted in July 2001 by the United Nations Economic and Social Council (ECOSOC), in which ECOSOC decided to establish, under the regular agenda item "Coordination, programme and other questions", the regular sub-item "Mainstreaming a gender perspective into all policies and programmes of the United Nations system" in order to, *inter alia*, monitor and evaluate achievements made and obstacles encountered by the United Nations system, and to consider further measures to strengthen the implementation and monitoring of gender mainstreaming within the United Nations system;

c) Millennium Development Goal 3 "Promote gender equality and empower women", which calls for the elimination of gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015;

d) United Nations General Assembly Resolution 64/289, on system-wide coherence, adopted on 21 July 2010, establishing the United Nations Entity for Gender Equality and the Empowerment of Women, which will be known as "UN Women", with the mandate to promote gender equality and the empowerment of women;

e) Resolution 1327, adopted by the Council at its 2011 session, on ITU's role in ICTs and the empowerment of women and girls;

f) ECOSOC Resolution E/2012/L.8, on mainstreaming a gender perspective into all policies and programmes in the United Nations system, which welcomed the development of the UN System-Wide Action Plan on Gender Equality and the Empowerment of Women (UNSWAP);

g) the endorsement of the SWAP reporting framework by the Chief Executives Board in April 2012, calling upon the United Nations system to engage in its roll-out and report on implementation,

recognizing

a) that the role of standardization is essential for effective development of globalization and ICTs;

b) that society as a whole, particularly in the context of the information and knowledge society, will benefit from equal participation of women and men in policy-making and decision-making and equal access to communication services for both women and men;

c) that statistically very few women are included in the national and international standardization processes;

d) that there is a need to ensure that women can participate actively and meaningfully in all ITU-T activities;

e) that the Secretary-General has issued an updated ITU English Language Style Guide, which addresses the use of non-discriminatory language,

considering

a) that the outcomes of the World Summit on the Information Society (WSIS), namely the Geneva Declaration of Principles, the Geneva Plan of Action, the Tunis Commitment and the Tunis Agenda for the Information Society, project the concept of the information society, and that continued efforts must be undertaken in this context to bridge the gender digital divide;

b) that the Telecommunication Standardization Bureau (TSB), for its part, conducted a study on women in telecommunication standardization, exploring the gender perspective and activities related to gender mainstreaming in ITU-T and TSB, in the interests of determining the degree to which women are active participants in all ITU-T activities;

c) the progress made by ITU in awareness-raising on gender issues, specifically over the last decade, in increasing women's participation in and contribution to international forums, in studies, projects and training, and in establishing an internal Gender Task Force;

d) the successful establishment by ITU of an international "Girls in ICT" day to be held every year on the fourth Thursday of April;

e) the considerable recognition given to the work of ITU in gender and ICT within the United Nations family of organizations,

considering further

a) that there is a need for ITU to investigate, analyse and further understand the impact of ICTs on women and men, given that ICTs can serve to foster gender equality and women's empowerment and to form an integral part of activities aimed at creating fairer and more inclusive societies;

b) that ITU should also continue in its efforts to ensure that the gender perspective is present in all of the Union's policies, work programmes, information dissemination activities, publications, study groups, seminars, courses and conferences,

resolves

1 that ITU-T should continue to encourage the inclusion of a gender perspective, including the use of gender-neutral language, in the work of all ITU-T activities and groups, including TSAG and the ITU-T study groups;

2 that inclusion of the gender perspective should be ensured in the implementation of all relevant outcomes of this assembly;

3 that a high priority be accorded to gender mainstreaming in the management, staffing and operation of ITU-T;

4 to invite TSAG, the Radiocommunication Advisory Group (RAG) and the Telecommunication Development Advisory Group (TDAG) to assist in the identification of subjects and mechanisms to foster the mainstreaming of a gender perspective, as well as matters of mutual interest in that regard,

instructs the Director of the Telecommunication Standardization Bureau

1 to undertake the integration of a gender perspective in the work of TSB in accordance with the principles already applied in ITU;

2 to organize gender-mainstreaming training for TSB staff;

3 to encourage Member States and Sector Members to contribute to meeting gender-equality objectives through the equal participation of qualified women and men in standardization activities as well as in leadership positions;

4 to encourage the participation, contribution and leadership of women in all aspects of ITU-T activities;

5 to conduct research to identify women in standardization, with a goal of creating an ITU-T Women in Standardization Group;

6 to conduct an annual review on progress made in the Sector in advancing gender mainstreaming, and to share findings with TSAG and the next WTSA,

invites the Secretary-General

1 to comply with the reporting obligations, as required by the UNSWAP, on the ITU-T activities aimed at promoting gender equality and the empowerment of women;

2 to encourage ITU staff to take account of the gender-neutral guidelines of the ITU English Language Style Guide and to avoid, as much as possible, the use of gender-specific terms,

invites Member States and Sector Members

1 to submit candidatures to chairman/vice-chairman posts to support the active involvement of women experts in standardization groups and activities, and in their own administrations and delegations;

2 to actively support and participate in the work of TSB, to nominate experts for the ITU-T Women in Standardization Group and to promote the use of ICTs for the economic and social empowerment of women and girls;

3 to encourage ICT education for girls and women, and prepare them for a career in ICT standardization.

RESOLUTION 57 (Rev. Dubai, 2012)

Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that a basic principle for cooperation and collaboration among the ITU Radiocommunication (ITU-R), Telecommunication Standardization (ITU-T) and Telecommunication Development (ITU-D) Sectors is the need for avoiding duplication of activities of the Sectors, and ensuring that work is undertaken efficiently and effectively;

b) that there is a growing number of issues of mutual interest and concern to all Sectors including the following: electromagnetic compatibility (EMC); International Mobile Telecommunications (IMT); middleware; audiovisual delivery; accessibility for persons with disabilities; emergency communications; ICTs and climate change; and cybersecurity,

recognizing

a) that there is a need to improve the participation of developing countries[1] in the work of ITU, as outlined in Resolution 5 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference;

b) that one such mechanism – the Inter-sectoral Emergency Telecommunication Team – has been established to ensure close collaboration within the Union as a whole, as well as with interested entities and organizations outside ITU, on this key priority issue for the Union;

c) that all advisory groups are collaborating in the implementation of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developing and developed countries,

taking into account

a) that mechanisms for cooperation, beyond those already established, need to be identified to address a growing number of subjects of mutual interest and concern in ITU-R, ITU-T and ITU-D;

b) the ongoing consultation among representatives of the three advisory bodies in the discussion of modalities for enhancing cooperation among the advisory groups,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

resolves

1 to invite the Radiocommunication (RAG), Telecommunication Standardization (TSAG) and Telecommunication Development (TDAG) advisory groups to assist in the identification of subjects common to the three Sectors and mechanisms to enhance cooperation and collaboration in all Sectors on matters of mutual interest;

2 to invite the Directors of the Radiocommunication (BR), Telecommunication Standardization (TSB) and Telecommunication Development (BDT) Bureaux to collaborate and report to the respective Sector advisory bodies on options for improving cooperation at the secretariat level to ensure that close coordination is maximized.

RESOLUTION 58 (Rev. Dubai, 2012)

Encouraging the creation of national computer incident response teams, particularly for developing countries[1]

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

that Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference instructs the Secretary-General and the Directors of the three Bureaux to work closely with each other in pursuing initiatives that assist in bridging the standardization gap between developing and developed countries,

recognizing

a) the highly satisfactory results obtained by the regional approach within the framework of Resolution 54 (Rev. Dubai, 2012) of this assembly;

b) the increasing level of computer use and computer dependency in information and communication technologies (ICT) within developing countries;

c) the increasing attacks and threat on ICT networks through computers;

d) the work carried out by the ITU Telecommunication Development Sector (ITU-D) under Question 22/1 of ITU-D Study Group 1 on this subject,

noting

a) that there is still a low level of computer emergency preparedness within many countries, particularly developing countries;

b) that the high level of interconnectivity of ICT networks could be affected by the launch of an attack from networks of the less-prepared nations, which are mostly the developing countries;

c) the importance of having an appropriate level of computer emergency preparedness in all countries;

d) the need for establishment of computer incident response teams (CIRTs) on a national basis and the importance of coordination within and among the regions,

e) the work of Study Group 17 of the ITU Telecommunication Standardization Sector (ITU-T) in the area of national CIRTs, particularly for developing countries, and cooperation between them, as contained in the outputs of the study group,

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1 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

bearing in mind

that well-functioning CIRTs in developing countries will serve to improve the level of developing countries' participation in world computer emergency response activities and contribute to achieving an effective global ICT infrastructure,

resolves

to support the creation of national CIRTs in Member States where CIRTs are needed and are currently absent,

instructs the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau

1 to identify best practices to establish CIRTs;

2 to identify where CIRTs are needed;

3 to collaborate with international experts and bodies to establish national CIRTs;

4 to provide support, as appropriate, within existing budgetary resources;

5 to facilitate collaboration between national CIRTs, such as capacity building and exchange of information, within an appropriate framework,

invites the Member States

1 to consider the creation of a national CIRT as a high priority;

2 to collaborate with other Member States and with Sector Members,

invites Member States and Sector Members

to cooperate closely with ITU-T and ITU-D in this regard.

RESOLUTION 59 (Rev. Dubai, 2012)

Enhancing participation of telecommunication operators from developing countries[1]

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) that the participation by operators from developing countries in standardization activities is weak;

b) that the majority of these operators are subsidiaries of developed countries' telecommunication companies which are Sector Members;

c) that the strategic objectives of Sector Members from developed countries participating in activities of the ITU Telecommunication Standardization Sector (ITU-T) do not necessarily include the participation of their subsidiary entities;

d) that those developing countries' telecommunication operators are placing particular emphasis on information and communication technology (ICT) operation and infrastructure deployment, to the disadvantage of standardization activities;

e) that the Plenipotentiary Conference adopted Resolution 170 (Guadalajara, 2010), on the impact of ITU Recommendations on the activities of Sector Members,

taking into account

the strategic plan of the Union adopted in both Resolution 71 (Rev. Guadalajara, 2010) and Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

considering

a) that developing countries would benefit from effective participation by their operators in ITU-T activities;

b) that this participation by the operators would contribute to enhancing capacity building in the developing countries, increase their competitiveness, and support innovation in the markets of developing countries,

resolves to invite the Director of the Telecommunication Standardization Bureau

1 to encourage Sector Members from the developed countries to promote the participation in ITU-T activities of their subsidiaries installed in developing countries;

2 to develop mechanisms to support the effective participation by telecommunication operators from developing countries in standardization activities;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

3 to raise the awareness of the developing countries regarding the benefits of participation and of becoming an ITU-T Sector Member and/or Associate,

invites Member States

to encourage their Sector Members to participate in ITU-T activities.

RESOLUTION 60 (Rev. Dubai, 2012)

Responding to the challenges of the evolution of the identification/numbering system and its convergence with IP-based systems/networks

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, with regard to the continuing progress towards integration of telecommunications and the Internet;

b) Resolutions 101 and 102 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

c) the evolving role of the World Telecommunication Standardization Assembly, as reflected in Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

noting

a) the work in Study Group 2 of the ITU Telecommunication Standardization Sector (ITU-T), on investigating the evolutionary aspect of the numbering system, including the "future of numbering", considering next-generation networks (NGN) and future networks (FN) as the working environment of the numbering system in the future;

b) that the transition from traditional networks to IP-based networks is taking place at a fast pace, whilst there is a transition to NGN and FN;

c) the emerging issues concerning administrative control for international telecommunication service-based numbers;

d) the forthcoming issues concerning the convergence of numbering, naming, addressing and identification systems along with the development of NGN and FNs, and associated issues concerning security, signalling, portability and migration;

e) the growing demand for numbering/identification resources for communications referred to as machine-to-machine (M2M);

f) the need for principles and a roadmap for the evolution of international telecommunication resources, which would be expected to help the timely, predictable deployment of advanced identification technologies,

resolves to instruct ITU-T Study Group 2, within the mandate of ITU-T

1 to continue studying, in liaison with the other relevant study groups, the necessary requirements for the structure and maintenance of telecommunication identification/numbering resources in relation to the deployment of IP-based networks and the transition to NGN and FN;

2 to ensure the development of the administrative requirements for identification/numbering resource management systems in NGN and FN;

3 to continue developing guidelines, as well as a framework, for the evolution of the international telecommunication numbering system and its convergence with IP-based systems, in coordination with related study groups and associated regional groups, so that a basis for any new application can be provided,

instructs relevant study groups, and in particular ITU-T Study Group 13

to support the work of Study Group 2, to ensure that such applications are based on appropriate guidelines, as well as a framework, for the evolution of the international telecommunication numbering/identification system, and to help investigate their impact on the numbering/identification system,

instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the foregoing work regarding the evolution of the numbering/identification system or its converged applications,

invites Member States and Sector Members

1 to contribute to these activities, taking into consideration their national concerns and experiences;

2 to participate in and to contribute to regional groups discussing the issue and to promote the participation of developing countries in those discussions.

RESOLUTION 61 (Rev. Dubai, 2012)

Countering and combating misappropriation and misuse of international telecommunication numbering resources

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 29 (Rev. Dubai, 2012) of this assembly, on alternative calling procedures on international telecommunication networks, which (citing ITU Council Resolution 1099) urged the ITU Telecommunication Standardization Sector (ITU-T) to develop, as soon as possible, the appropriate Recommendations concerning alternative calling procedures;

b) Recommendation ITU-T E.156, which sets out guidelines for ITU-T action on reported misuse of ITU-T E.164 numbering resources, and Recommendation ITU-T E.156 Supplement 1, which provides a best-practice guide on countering misuse of ITU-T E.164 numbering resources;

c) the purposes of the Union to foster collaboration among the membership for the harmonious development of telecommunications and to enable the offering of services at lowest cost,

noting

the significant number of cases reported to the Director of the Telecommunication Standardization Bureau (TSB) regarding misappropriation and misuse of ITU-T E.164 numbers,

recognizing

a) that the fraudulent misappropriation and misuse of national telephone numbers and country codes is harmful;

b) that the blocking of calls by barring the country code to a country in order to avoid fraud is harmful;

c) that inappropriate activities causing loss of revenue are an important issue to be studied;

d) relevant provisions of the ITU Constitution and Convention,

resolves to invite Member States

1 to ensure that ITU-T E.164 numbering resources are used only by the assignees and only for the purposes for which they were assigned, and that unassigned resources are not used;

2 to endeavour to ensure that operating agencies authorized by Member States release routing information to duly authorized agencies in cases of fraud, in accordance with national law;

3 to encourage administrations and national regulators to collaborate and share information on fraudulent activities related to misappropriation and misuse of international numbering resources, and to collaborate to counter and combat such activities;

4 to encourage all international telecommunication operators to enhance the effectiveness of ITU's role and to give effect to its Recommendations, particularly those of ITU-T Study Group 2, in order to promote a new and more effective basis to counter and combat fraudulent activities due to number misappropriation and misuse, which would help limit the negative effects of these fraudulent activities and the blocking of international calls;

5 to encourage administrations and international telecommunication operators to implement ITU-T Recommendations in order to mitigate the adverse effects of fraudulent number misappropriation and misuse, including blocking of calls to certain countries,

resolves further

1 that administrations and operating agencies authorized by Member States take, to the furthest extent practicable, all reasonable measures to provide information necessary to address issues related to number misappropriation and misuse;

2 that administrations and operating agencies authorized by Member States should take note of and consider, to the furthest extent practicable, the "Suggested guidelines for regulators, administrations and operating agencies authorized by Member States for dealing with number misappropriation", in accordance with the attachment to this resolution;

3 that Member States and national regulators should take note of instances of activities related to the misuse of international numbering resources, in accordance with Recommendation ITU-T E.164, through relevant ITU-T resources (e.g. the ITU-T Operational Bulletin);

4 to request Study Group 2 to study all aspects and forms of misappropriation and misuse of numbering resources, in particular of international country codes, with a view to amending Recommendation ITU-T E.156 and its supplements and guidelines to support countering and combating these activities;

5 to request ITU-T Study Group 3, in collaboration with Study Group 2, to develop definitions for inappropriate activities, including inappropriate activities causing loss of revenue, related to misappropriation and misuse of international numbering resources specified in the relevant ITU-T Recommendations, and to continue to study such matters;

6 to request Study Group 3 to study the economic effects resulting from misappropriation and misuse of numbering resources, including call blocking.

ATTACHMENT
(to Resolution 61)

Suggested guidelines for regulators, administrations and operating agencies authorized by Member States for dealing with number misappropriation

In the interest of global development of international telecommunications, it is desirable for regulators, administrations and operating agencies authorized by Member States to cooperate with others and to take a collaborative and reasonable approach to avoid the blocking of country codes. Cooperation and subsequent actions would have to take account of the constraints of national regulatory frameworks and laws. It is recommended that the following guidelines be applied in country X (the location of the calling party), country Y (the country through which the call is routed) and country Z (the country to which the call was originally destined) regarding number misappropriation.

Country X (location of call origination)	**Country Y (country through which the call is routed)**	**Country Z (country to which the call was originally destined)**
		On receipt of a complaint, the national regulator finds the information: name of the carrier from which the call originated, time of the call and called number, and passes this information to the national regulator in country X.
When a complaint is received, the first information that is required is the name of the carrier from which the call originated, the time of the call and the called number.		
Once the call details are known, the national regulator requests relevant information from the carrier from which the call originated, to determine the next carrier through which the call was routed.		
Once the relevant information has been found, the national regulator is to advise the national regulator of the next country of the call details (including the call detail record) and request the national regulator to request further information.	The national regulator asks the other carriers for relevant information. This process continues until the information on where the call was misappropriated is found.	
Cooperation from national regulators, as appropriate, to manage these issues.	Cooperation is required from entities involved, to attempt to bring a criminal case against the perpetrators.	Cooperation is encouraged between and among national regulators involved, to resolve these issues.

RESOLUTION 62 (Rev. Dubai, 2012)

Dispute settlement

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that Internet penetration rates remain low in developing countries[1], in particular in comparison with the penetration rates of mobile telephony, and that the growth rates of Internet penetration in developing countries are also very low when compared with the growth rates of mobile telephony;

b) the increasing imbalance under the current circumstances between developed and developing countries, in terms of economic growth and technological progress;

c) that numerous explanations have been put forward to explain the phenomena mentioned above,

recognizing

a) that the continuing social and economic underdevelopment of a large part of the world is one of the most serious problems affecting not only the countries concerned, but also the international community as a whole;

b) that the development of telecommunication/information and communication technologies infrastructure and services is a precondition for social and economic development;

c) that the uneven access to telecommunication facilities globally results in a widening of the gap between the developed and the developing world in terms of economic growth and technological progress;

d) that many countries have agreed to the dispute settlement clause for interconnection in the World Trade Organization reference paper on the principles and definitions on the regulatory framework for the basic telecommunication services,

noting

the contribution from Study Group 3 of the ITU Telecommunication Standardization Sector (ITU-T) to the second meeting of the Internet Governance Forum;

resolves to instruct ITU-T Study Group 3

1 to expedite its work on international connectivity, in order to facilitate the implementation of relevant resolutions;

2 to collect data with respect to the implementation and practical effects of the implementation of relevant resolutions and ITU-T D-series Recommendations,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

invites Member States

1 to encourage each party to include in a negotiation or agreement related to, or arising out of, international connectivity matters a dispute settlement clause in such agreements;

2 to encourage all operating agencies domiciled within their territories to implement relevant ITU-T Recommendations;

3 to contribute to ITU-T's further work in the areas mentioned in this resolution,

instructs the Director of the Telecommunication Standardization Bureau

1 to report annually to the ITU Council with respect to the implementation of this resolution;

2 to provide all necessary support, within the existing budget, to Study Group 3 for its further work on this matter.

RESOLUTION 64 (Rev. Dubai, 2012)

IP address allocation and facilitating the transition to and deployment of IPv6

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) Resolutions 101 (Rev. Guadalajara, 2010), 102 (Rev. Guadalajara, 2010) and 180 (Guadalajara, 2010) of the Plenipotentiary Conference, and Resolution 63 (Hyderabad, 2010) of the World Telecommunication Development Conference;

b) that the exhaustion of IPv4 addresses calls for acceleration of IPv4 to IPv6 migration, which becomes an important issue for Member States and Sector Members;

c) the result of the ITU IPv6 Group, which has carried out the work that was assigned to it;

d) that future work on IPv6 human capacity building is to be continued and led by the Telecommunication Development Bureau (BDT), in collaboration with other relevant organizations, if required,

noting

a) that IP addresses are fundamental resources that are essential for the future development of IP-based telecommunication/information and communication technology (ICT) networks and for the world economy;

b) that many countries believe that there are historical imbalances related to IPv4 allocation;

c) that large contiguous blocks of IPv4 addresses are becoming scarce and that it is urgent to promote migration to IPv6;

d) the ongoing collaboration and coordination between ITU and relevant organizations on IPv6 capacity building in order to respond to the needs of Member States and Sector Members;

e) the progress towards adoption of IPv6 that has been made over the last few years,

considering

a) that, among the relevant stakeholders in the Internet community, there is a need to continue discussions related to IPv6 deployment and disseminate information in this regard;

b) that IPv6 deployment and migration is an important issue for Member States and Sector Members;

c) that many developing countries[1] are experiencing challenges in the IPv4 to IPv6 transition process including due to the limited technical skills in this area;

d) that Member States have an important role to play in promoting the deployment of IPv6;

e) that prompt deployment of IPv6 is increasingly urgent on account of the rapid rate of depletion of IPv4 addresses;

f) that many developing countries want the Telecommunication Standardization Sector (ITU-T) to become a registry of IP addresses in order to give the developing countries the option of obtaining IP addresses directly from ITU, while other countries prefer to use the current system,

resolves

1 to instruct ITU-T Study Groups 2 and 3, each according to its mandate, to continue to study the allocation and economic aspects of IP addresses, and to monitor and evaluate the allocation of IPv4 addresses which may be still available, returned or unused, in the interests of the developing countries;

2 to instruct Study Groups 2 and 3, each according to its mandate, to study IPv6 address allocation and registration for interested members and, especially, developing countries;

3 to enhance the exchange of experiences and information with all stakeholders regarding the deployment of IPv6, with the aim of creating opportunities for collaborative efforts, and to ensure that feedback exists to enrich ITU efforts to support the transition to and deployment of IPv6,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau

1 to continue the ongoing activities between the Telecommunication Standardization Bureau (TSB) and BDT, taking into consideration the involvement of those partners willing to participate and bring their expertise to assist developing countries with IPv6 migration and deployment, and respond to their regional needs as identified by BDT, especially through capacity-building programmes through BDT Programmes 2 and 4;

2 to maintain the website which provides information about global activities related to IPv6, in order to facilitate awareness-raising and highlight the importance of IPv6 deployment for all ITU members and interested entities, as well as information related to training events being undertaken by ITU and relevant organizations (e.g. regional Internet registries (RIR), network operator groups and the Internet Society (ISOC));

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

3 to promote awareness of the importance of IPv6 deployment, to facilitate joint training activities, involving appropriate experts from the relevant entities, to provide information, including roadmaps and guidelines, and to assist in the establishment of IPv6 test-bed laboratories in developing countries in collaboration with appropriate relevant organizations,

further instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the activities of Study Groups 2 and 3 in the area of IP addresses, and to report annually to the ITU Council and also to the 2016 world telecommunication standardization assembly, regarding the progress on action taken with respect to *resolves* above,

invites Member States and Sector Members

1 through the knowledge gained under *resolves* 3, to promote specific initiatives at the national level which foster interaction with governmental, private and academic entities and civil society for the purposes of the information exchange necessary for the deployment of IPv6 in their respective countries;

2 to ensure that newly deployed communication and computer equipment has IPv6 capability, as appropriate, taking into consideration a necessary period for the transition from IPv4 to IPv6,

invites Member States

to develop national policies to promote the technological update of systems, in order to ensure that the public services provided utilizing the IP protocol and the communications infrastructure and relevant applications of the Member States are compatible with IPv6.

RESOLUTION 65 (Rev. Dubai, 2012)

Calling party number delivery, calling line identification and origin identification

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

concerned

a) that there appears to be a trend to suppress the transmission across international boundaries of calling party, calling line and origin identification information, in particular the country code and the national destination code;

b) that such practices have an unfavourable effect on security and economic issues, in particular for developing countries[1];

c) about the significant number of cases reported to the Director of the Telecommunication Standardization Bureau (TSB) on ITU-T E.164 numbering misappropriation and misuse related to non-delivery or spoofing of the calling party number;

d) that work in Study Group 2 of the ITU Telecommunication Standardization Sector (ITU-T) on this topic needs to be expedited and expanded,

noting

a) relevant ITU-T Recommendations, in particular:

i) ITU-T E.156, Guidelines for ITU-T action on reported misuse of ITU-T E.164 number resources;

ii) ITU-T E.157, International calling party number delivery;

iii) ITU-T E.164, The international public telecommunication numbering plan;

iv) ITU-T I.251.3, Number identification supplementary services: Calling Line Identification Presentation;

v) ITU-T I.251.4, Number identification supplementary services: Calling Line Identification Restriction;

vi) ITU-T I.251.7, Number identification supplementary services: Malicious call identification;

vii) ITU-T Q.731.x-series, concerning stage 3 descriptions for number identification supplementary services using Signalling System No. 7;

viii) ITU-T Q.731.7, Stage 3 description for number identification supplementary services using Signalling System No. 7: Malicious call identification (MCID);

ix) ITU-T Q.764, Signalling System No. 7 – ISDN User Part signalling procedures;

x) ITU-T Q.1912.5, Interworking between Session Initiation Protocol (SIP) and Bearer Independent Call Control protocol or ISDN User Part;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) relevant resolutions:

i) Resolution 61 (Rev. Dubai, 2012) of this assembly, on misappropriation and misuse of international telecommunication numbering resources;

ii) Resolution 21 (Rev. Antalya, 2006) of the Plenipotentiary Conference, on special measures concerning alternative calling procedures on international telecommunication networks;

iii) Resolution 29 (Rev. Dubai, 2012) of this assembly, on alternative calling procedures on international telecommunication networks,

noting further

that some countries and regions have adopted national laws, directives and recommendations regarding non-delivery and spoofing of calling party number, and/or on ensuring confidence in origination identification, and that some countries have national data-protection and data-privacy laws, directives and recommendations,

reaffirming

that it is the sovereign right of each country to regulate its telecommunications and, as such, regulate the provision of calling line identification (CLI), calling party number delivery (CPND) and origin identification (OI), taking into account the Preamble to the ITU Constitution,

resolves

1 that international CLI, CPND and OI shall be provided based on the relevant ITU-T Recommendations where technically possible;

2 that the delivered calling party numbers (CPN) shall at least, where technically possible, be prefixed with country codes so that a terminating country can identify in which country the calls are originated before they are delivered from an originating country to that terminating country;

3 that, in addition to the country code if delivered, the delivered CPN and CLI shall include the national destination code, or sufficient information to allow proper billing and accounting, for each call;

4 that the CPN, CLI and OI information shall be transmitted transparently by transit networks (including hubs),

instructs

1 ITU-T Study Group 2, ITU-T Study Group 3 and, where required, ITU-T Study Group 17 to further study the emerging issues of CPND, CLI and OI;

2 the study groups concerned to expedite work on Recommendations that would provide additional detail and guidance for the implementation of this resolution;

3 the Director of the TSB to report on the progress achieved by the study groups in implementing this resolution, which is intended to improve security and minimize fraud, and minimize technical harm as called for by Article 42 of the Constitution,

invites Member States

to contribute to this work and to cooperate in the implementation of this resolution.

RESOLUTION 66 (Rev. Dubai, 2012)

Technology Watch in the Telecommunication Standardization Bureau

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that it is desirable for the Telecommunication Standardization Bureau (TSB) to survey new technologies for possible new standardization activities in ITU and to identify how such new technologies can be included within the ITU-T Telecommunication Standardization Sector (ITU-T) work programme;

b) that Technology Watch identifies emerging technologies, as well as their likely impact on future standardization work for both developed and developing countries[1], with a view to identifying work items for possible new ITU-T Recommendations;

c) that the rapid change of the telecommunication/information and communication technology (ICT) environment requires related technology watch and immediate reaction, in order to propose possible ITU-T standardization activities as early as possible;

d) that telecommunications/ICTs are enabling applications and services in other economic sectors;

e) that these developments and how they relate to the ITU-T work programme need to be surveyed and assessed;

f) that Technology Watch collaborates with the ITU-T membership, standards development organizations recognized by ITU, universities, academia and other related institutions,

recognizing

the encouraging results of Technology Watch in the last cycles,

resolves to instruct the Director of the Telecommunication Standardization Bureau

1 to ensure that Technology Watch activities are performed within the Bureau and to submit the findings for contributing to the development of relevant ITU-T Recommendations;

2 to continue to provide the output of Technology Watch, with relevant findings and analysis, as soon as possible to the relevant study groups and the Telecommunication Standardization Advisory Group for their consideration and action in accordance with their mandates;

3 to continue to publish the main results of Technology Watch as brief summaries,

encourages Member States and Sector Members

to contribute actively to Technology Watch, by submitting topic proposals and abstracts for future activities and by reviewing and discussing the Technology Watch findings.

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

RESOLUTION 67 (Rev. Dubai, 2012)

Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) the adoption by the Plenipotentiary Conference of Resolution 154 (Rev. Guadalajara, 2010), on the use of the six official languages of the Union on an equal footing, which instructs the ITU Council and the General Secretariat on how to achieve equal treatment of the six languages;

b) the decisions of the Council centralizing the editing functions for languages in the General Secretariat (Conferences and Publications Department), calling upon the Sectors to provide the final texts in English only (this applies also to terms and definitions),

considering

a) that under Resolution 154 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, the Council is instructed to continue the work of the Council Working Group on Languages, in order to monitor progress and report to the Council on the implementation of that resolution;

b) the importance of providing information in all the official languages of the Union on an equal footing on webpages of the ITU Telecommunication Standardization Sector (ITU-T),

noting

that in accordance of Resolution 67 (Johannesburg, 2008) of the World Telecommunication Standardization Assembly (WTSA), on the initiation of the Standardization Committee for Vocabulary (SCV), SCV was established,

resolves

1 that the ITU-T study groups, within their terms of reference, should continue their work on technical and operational terms and their definitions in English only;

2 that the work on standardization vocabulary within ITU-T shall be based on the proposals made by the study groups in the English language, with the consideration and adoption of the translation into the other five official languages as proposed by the General Secretariat, and that this shall be ensured by SCV;

3 that, when proposing terms and definitions, the ITU-T study groups shall use the guidelines given in Annex B to the "Author's guide for drafting ITU-T Recommendations";

4 that, where more than one ITU-T study group is defining the same terms and/or concept, efforts should be made to select a single term and a single definition which is acceptable to all of the ITU-T study groups concerned;

5 that, when selecting terms and preparing definitions, the ITU-T study groups shall take into account the established use of terms and existing definitions in ITU, in particular those appearing in the online ITU Terms and Definitions database;

6 that the Telecommunication Standardization Bureau (TSB) should collect all new terms and definitions, which are proposed by the ITU-T study groups in consultation with SCV, and enter them in the online ITU Terms and Definitions database;

7 that SCV should work in close collaboration with the Coordination Committee on Vocabulary (CCV) of the ITU Radiocommunication Sector,

instructs the Director of the Telecommunication Standardization Bureau

1 to continue to translate all Recommendations approved under the traditional approval process (TAP) in all the languages of the Union;

2 to translate all Telecommunication Standardization Advisory Group (TSAG) reports in all the languages of the Union;

3 to include in the circular that announces the approval of a Recommendation an indication of whether it will be translated,

invites the Council

to take appropriate measures to ensure that information on the ITU websites is made available in all the official languages of the Union on an equal footing within budgetary limits;

instructs the Telecommunication Standardization Advisory Group

to consider the best mechanism for deciding which Recommendations approved under the alternative approval process (AAP) shall be translated, in light of the relevant Council decisions.

ANNEX
(to Resolution 67)

Terms of reference for the Standardization Committee for Vocabulary

1 To provide consultation on terms and definitions for vocabulary work for ITU-T in the six languages, in close collaboration with the General Secretariat (Conferences and Publications Department), the TSB editor for the English language as well as the relevant study group rapporteurs for vocabulary, and to seek harmonization among all concerned ITU-T study groups regarding terms and definitions.

2 To liaise with CCV and other organizations dealing with vocabulary work in the telecommunication field, for example with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) as well as the ISO/IEC Joint Technical Committee for Information Technology (JTC 1), in order to eliminate duplication of terms and definitions.

3 To inform TSAG at least once per year of its activities and to report its results to the next WTSA.

RESOLUTION 68 (Rev. Dubai, 2012)

Implementation of Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference on the evolving role of the World Telecommunication Standardization Assembly

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) that Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the evolving role of the World Telecommunication Standardization Assembly (WTSA), called also for the organization of the Global Standardization Symposium (GSS);

b) the objective of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developed and developing countries[1];

c) that the ITU Telecommunication Standardization Sector (ITU-T) is the unique international standardization organization comprising Member States, Sector Members, Associates and academia;

d) the important conclusions of GSS (Dubai, 2012), covering the two above-mentioned resolutions, in particular:

– to facilitate an exchange of views with high-level industry representatives on the standardization scenario and consider in ITU's work the evolution of the industry and user needs; and

– to carry out this work without affecting either the unique status of ITU as an intergovernmental United Nations agency that also incorporates other entities representing the private sector, the industry and the users, among others, or the traditional contribution-driven working procedures of ITU-T,

considering

a) that developing countries participate only in the standardization activities of ITU-T and may not be able to participate in the increasingly fragmented global and/or regional standards development organizations (SDOs), as well as industry forums and consortia, and may not be able to participate in the yearly meeting of SDOs;

b) that ITU-T should strengthen its role and evolve, as required by Resolution 122 (Rev. Guadalajara, 2010), and should repeat the gathering of high-level, private-sector executives, along the lines of GSS, but limited to the private sector, with the objective of strengthening the role of ITU-T by taking appropriate measures to respond to the needs of such high-level executives in terms of their identified requirements and priorities for standardization activities within ITU-T, also taking into consideration the needs of developing countries,

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

noting

a) the excellent results of the Global Industry Leaders Forum (GILF), which was organized by the Director of the Telecommunication Development Bureau for high-level executives of the private sector, focusing on key challenges in achieving information and communication technology (ICT) development in developing countries and proposing approaches for addressing those challenges for developing countries;

b) that, in order to encourage industry participation in ITU-T and to discourage the proliferation of forums and consortia, standard-making today should respond appropriately to the needs of the high-level representatives of the ICT industry in a coordinated way;

c) that Recommendations proposed in response to those coordinated needs will increase ITU's credibility and will respond to the needs of countries by deploying optimized technical solutions and reducing the proliferation of those solutions, which will also have economic advantages for developing countries,

resolves to instruct the Director of the Telecommunication Standardization Bureau

1 to organize meetings for high-level industry executives, e.g. chief technology officer (CTO) meetings, in order to assist in identifying and coordinating standardization priorities and subjects to minimize the number of forums and consortia;

2 to bring the needs of developing countries to those meetings by consulting them prior to the meetings using questionnaires;

3 to develop effective mechanisms to attract an increased number of high-level technology executives to participate in those meetings, with a view to enhancing cooperation, collaboration and coordination with their organizations, and encouraging those organizations to join ITU-T as a Sector Member, or as Sector Members, as appropriate;

4 to report on progress on this resolution to the Telecommunication Standardization Advisory Group and to the next WTSA, with lessons learned.

RESOLUTION 69 (Rev. Dubai, 2012)

Non-discriminatory access and use of Internet resources

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

that one of the purposes of ITU laid down in Article 1 of the ITU Constitution is "to maintain and extend international cooperation among all its Member States for the improvement and rational use of telecommunications of all kinds",

considering further

a) the outcome documents of the World Summit on the Information Society (WSIS), Geneva 2003 and Tunis 2005, including the WSIS Declaration of Principles, especially §§ 11, 19, 20, 21 and 49 thereof;

b) the United Nations Human Rights Council resolution on the promotion, protection and enjoyment of human rights on the Internet (A/HRC/20/L.13),

noting

that § 48 of the WSIS Declaration of Principles recognized that: "The Internet has evolved into a global facility available to the public and its governance should constitute a core issue of the information society agenda. The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations. It should ensure an equitable distribution of resources, facilitate access for all and ensure a stable and secure functioning of the Internet, taking into account multilingualism",

recognizing

a) that the second phase of WSIS (Tunis, November 2005) identified ITU as the possible moderator/facilitator for the following WSIS action lines from the Plan of Action: C2 (Information and communication infrastructure) and C5 (Building confidence and security in use of the ICTs);

b) that the Plenipotentiary Conference (Guadalajara, 2010) entrusted the ITU Telecommunication Standardization Sector (ITU-T) with a range of activities aimed at implementing the WSIS (Tunis, 2005) outcomes, a number of those activities having to do with Internet-related issues;

c) Resolution 102 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues pertaining to the Internet and the management of Internet resources, including domain names and addresses;

d) that management of the registration and allocation of Internet domain names and addresses must fully reflect the geographical nature of the Internet, taking into account an equitable balance of interests of all stakeholders,

e) Resolution 64 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on non-discriminatory access to modern telecommunication/information and communication technology (ICT) facilities, services and applications, including applied research and transfer of technology, on mutually agreed terms;

f) Resolution 20 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference, on non-discriminatory access to telecommunication/ICT facilities, services and related applications;

g) Opinion 1 of the fourth World Telecommunication/ICT Policy Forum, on Internet-related public policy matters, and the Lisbon Consensus 2009 on the same matters,

taking into account

a) that ITU-T is dealing with technical and policy issues related to IP-based networks, including the Internet and next-generation networks;

b) that a number of the resolutions of this assembly deal with Internet-related issues;

c) the global and open nature of the Internet as a driving force in accelerating progress towards development in its various forms;

d) that discrimination in accessing the Internet could greatly affect the developing countries[1];

e) that ITU-T is playing a key role in bridging standardization gap between developed and developing countries,

resolves to invite Member States

1 to refrain from taking any unilateral and/or discriminatory actions that could impede another Member State from accessing public Internet sites and using resources, within the spirit of Article 1 of the Constitution and the WSIS principles;

2 to report to the Director of the Telecommunication Standardization Bureau (TSB) on any incident of this kind referred to in *resolves* 1 above,

instructs the Director of the Telecommunication Standardization Bureau

1 to integrate and analyse the information on incidents reported from Member States;

2 to report this information to Member States, through an appropriate mechanism;

3 to report to the Telecommunication Standardization Advisory Group (TSAG) on progress on this resolution, in order for TSAG to evaluate the effectiveness of its implementation;

4 to report on progress on this resolution to the next world telecommunication standardization assembly,

instructs the Secretary-General

to report annually to the ITU Council on progress on this resolution,

invites Member States and Sector Members

to submit contributions to the ITU-T study groups that contribute to the prevention and avoidance of such practices.

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

RESOLUTION 70 (Rev. Dubai, 2012)

Telecommunication/information and communication technology accessibility for persons with disabilities

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) Resolution 175 (Guadalajara, 2010) of the Plenipotentiary Conference, on telecommunication/information and communication technology (ICT) accessibility for persons with disabilities, including age-related disabilities;

b) Resolution 58 (Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC), on access to ICT for persons with disabilities, including persons with age-related disabilities, and WTDC Resolution 70 (Hyderabad, 2010), on a regional initiative for Central and Eastern Europe on "E-accessibility (Internet and digital television) for persons with disabilities";

c) the mandate of and work carried by the Joint Coordination Activity on Accessibility and Human Factors (JCA-AHF), and in particular ITU Telecommunication Standardization Sector (ITU-T) actions to increase cooperation with other United Nations organizations and activities, as well as all United Nations specialized agencies, in order to raise awareness about ICT accessibility in the framework of standardization, and ITU-T actions aimed at upholding JCA-AHF;

d) studies under ITU-T Question 4/2, on human factors-related issues for improvement of the quality of life through international telecommunications;

e) studies under ITU-T Question 26/16, on accessibility to multimedia systems and services, including the recent Recommendation ITU-T F.790 on telecommunication accessibility guidelines for older persons and persons with disabilities;

f) studies under Question 20/1 of the ITU Telecommunication Development Sector (ITU-D), on access to telecommunication services for people with disabilities;

g) ongoing work in the ITU Radiocommunication Sector (ITU-R) to bridge the digital disability divide;

h) the publication by the Telecommunication Standardization Advisory Group (TSAG) of the guide for ITU study groups – "Considering End-User Needs in developing Recommendations";

i) the creation by ITU-T Study Group 2 of JCA-AHF for the purposes of awareness-raising, advice, assistance, collaboration, coordination and networking;

j) the mandate of and work carried out by ITU-T Study Group 16, the parent group of the Focus Group on Audiovisual Media Accessibility (FG-AVA), meeting the need to make audiovisual means accessible to persons with disabilities;

k) the activity carried out by the Internet Governance Forum Dynamic Coalition on Accessibility and Disability (DCAD) sponsored by the Director of the Telecommunication Standardization Bureau (TSB), and the partnership between ITU-T and DCAD for the purposes of maximizing the benefits for all sectors of the global community of electronic communications and online information through the Internet,

considering

a) that Article 9, on accessibility, of the United Nations Convention on the Rights of Persons with Disabilities (UNCRDP), which entered into force on 3 May 2008, provides as follows: "To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility";

b) that §§ (2)(g) and (2)(h) of the same article of that Convention requires that States Parties take appropriate measures:

i) 9(2)(g) "to promote access for persons with disabilities to new information and communications technologies and systems, including the Internet";

ii) 9(2)(h) "to promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost",

considering further

a) that the World Health Organization estimates that more than one billion of the world's population live with some form of disability, of whom almost 200 million experience considerable difficulty in their daily lives, and it is to be expected that, in the future, disabilities will rise because of the increasing population of older persons and the risk that disability is greater among older persons;

b) that over the past 60 years, the approach to disability adopted by United Nations agencies, and by many Member States (through a changed emphasis in their laws, regulations, policies and programmes), has moved from a health and welfare perspective to an approach based on human rights, which recognizes that people with disabilities are people first, and that society places barriers upon them as opposed to their disabilities, and which includes the goal of full participation in society by persons with disabilities (Resolution 175 (Guadalajara, 2010));

c) that maximizing the accessibility and usability of telecommunication/ICT services, products and terminals through universal design will increase their uptake by persons with disabilities and older persons, and thereby increase revenues;

d) that United Nations General Assembly Resolution A/RES/61/106 adopting the Convention on the rights of persons with disabilities requests the Secretary-General (§ 5) "… to implement progressively standards and guidelines for the accessibility of facilities and services of the United Nations system, taking into account relevant provisions of the Convention, in particular when undertaking renovations";

e) the importance of cooperation between governments, the private sector and relevant organizations to promote affordable access possibilities,

recalling

a) § 18 of the Tunis Commitment, made at the second phase of the World Summit on the Information Society (Tunis, 2005): "We shall strive unremittingly, therefore, to promote universal, ubiquitous, equitable and affordable access to ICTs, including universal design and assistive technologies, for all people, especially those with disabilities, everywhere, to ensure that the benefits are more evenly distributed between and within societies, …"[1];

b) the Phuket Declaration on Tsunami Preparedness for Persons with Disabilities (Phuket, 2007), which emphasizes the need for inclusive emergency warning and disaster management systems using telecommunication/ICT facilities based on open, non-proprietary, global standards,

taking into account

a) Resolution 44 (Rev. Dubai, 2012) of this assembly, on bridging the standardization gap between developing and developed countries, and Resolution 57 (Rev. Dubai, 2012) of this assembly, on strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest;

b) Resolution GSC-14/27 (revised), on telecommunication/ICT accessibility for persons with disabilities, agreed upon at the 14th Global Standards Collaboration meeting (Geneva, 2009; Halifax, 2011), which advocates greater collaboration between world, regional and national standardization bodies as a basis for establishing and/or strengthening activities and initiatives concerning the use of telecommunications/ICTs for persons with disabilities;

c) Resolution GSC-13/26 (revised), on user needs, considerations and involvement, agreed upon at the 13th Global Standards Collaboration meeting (Boston, 2008; Halifax, 2011);

d) publications and ongoing work of the Special Working Group on Accessibility (ISO/IEC JTC 1 SWG – Accessibility) of the Joint Technical Committee on Information Technology (JTC 1) of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), as well as the Mandate 376 project teams, in identifying user needs and in developing a comprehensive inventory of existing standards as part of the ongoing effort to identify areas where research or new standards work is needed;

e) the activities of the ITU-T study groups in charge of accessibility to ICTs: ITU-T Study Group 16 (Multimedia coding, systems and applications), which is the lead study group on telecommunications/ICT accessibility for persons with disabilities, and ITU-T Study Group 2 (Operational aspects of service provision and telecommunication management) for the part relating to human factors;

f) activities relating to the development of new standards (e.g. ISO TC 159, JTC 1 SC35, IEC TC100, ETSI TC HF, and W3C WAI), and the implementation and maintenance of existing standards (e.g. ISO 9241-171);

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[1] Geneva Declaration of Principles §§ 13 and 30; Geneva Plan of Action §§ 9 *(e)* and *(f)*, 12 and 23; Tunis Commitment §§ 18 and 20; Tunis Agenda for the Information Society §§ 90 *(c)* and *(e)*.

g) the formation of the Global Initiative for Inclusive ICTs (G3ICT), a flagship partnership initiative of the United Nations Global Alliance for ICT and Development (UN-GAID);

h) the joint ITU and G3ict release of the Report "Making TV accessible", on the occasion of the International Day of Persons with Disabilities (3 December 2011), and the report on "Making mobile phones and services accessible to persons with disabilities";

i) various regional and national efforts to develop or revise guidelines and standards for telecommunication/ICT accessibility, compatibility and usability by persons with disabilities,

resolves

1 that Study Group 2, Study Group 16 and JCA-AHF shall continue giving high priority to work on the relevant Questions, in accordance with the accessibility guidelines, as shown in the guide for ITU-T study groups: "Considering End-User Needs in developing Recommendations" – facilitating the implementation of new software, services and proposals that enable all persons with disabilities, including persons with age-related disabilities, to effectively use telecommunication/ICT services; the "ITU-T Technical Paper, Telecommunications Accessibility Checklist" for standards writers; and Recommendation ITU-T F.790 on telecommunication accessibility guidelines for older persons and persons with disabilities;

2 that ITU study groups draft proposals to achieve greater accessibility to telecommunications/ICTs, combining the drafting of non-discriminatory standards, service regulations and measures for all persons with disabilities, including older persons with age-related disabilities, with cross-cutting user-protection actions;

3 to ask all ITU-T study groups to utilize the Telecommunications Accessibility Checklist, which makes it possible to incorporate the principles of universal design and accessibility;

4 that an ITU workshop be held to inform about the progress in the work and the results achieved by the study groups in charge of ICT accessibility before the next world telecommunication standardization assembly,

invites Member States and Sector Members

1 to consider developing, within their national legal frameworks, guidelines or other mechanisms to enhance the accessibility, compatibility and usability of telecommunication/ICT services, products and terminals;

2 to consider introducing telecommunication relay services[2] to enable persons with hearing and speech disabilities to utilize telecommunication services that are functionally equivalent to telecommunication services for persons without disabilities;

3 to participate actively in accessibility-related studies in ITU-T, ITU-R and ITU-D, and to encourage and promote self-representation by persons with disabilities in the standardization process so as to ensure

[2] Telecommunication relay services enable users of different modes of communication (e.g. text, sign, speech) to interact by providing convergence between the modes of communication, usually through human operators.

their experiences, views and opinions are taken into account in all the work of study groups;

4 to encourage the provision of differentiated and affordable service plans for persons with disabilities in order to increase the accessibility and usability of telecommunications/ICT for these persons;

5 to encourage the development of applications for telecommunication products and terminals to increase the accessibility and usability of telecommunications/ICT for persons with visual, auditory, verbal and other physical and mental disabilities;

6 to encourage regional telecommunication organizations to contribute to the work and consider implementing the results achieved in the study groups and the workshop on this topic,

instructs the Director of the Telecommunication Standardization Bureau

to report to the ITU Council on the implementation of this resolution,

invites the Director of the Telecommunication Standardization Bureau

1 to identify and document examples of best practice for accessibility in the field of telecommunication/ICT for dissemination among ITU Member States and Sector Members;

2 to review the accessibility of ITU-T services and facilities and consider making changes, where appropriate, pursuant to United Nations General Assembly Resolution 61/106, and to report to the Council on these matters;

3 to work collaboratively on accessibility-related activities with the Directors of the Radiocommunication Bureau (BR) and the Telecommunication Development Bureau (BDT), in particular concerning awareness and mainstreaming of telecommunication/ICT accessibility standards, reporting findings to the Council as appropriate;

4 to work collaboratively on accessibility-related activities with ITU-D, in particular developing programmes that enable developing countries to introduce services that allow persons with disabilities to utilize telecommunication services effectively;

5 to work collaboratively and cooperatively with other standardization organizations and entities, in particular, in the interest of ensuring that ongoing work in the field of accessibility is taken into account, in order to avoid duplication;

6 to work collaboratively and cooperatively with disability organizations in all regions to ensure that the needs of the disabled community are taken into account in all standardization matters;

7 to contribute to the development of an ITU-wide internship programme for people with disabilities who have expertise in the field of ICTs, so as to build capacity among people with disabilities in the standards-making process and to raise awareness within ITU-T of the needs of persons with disabilities;

8 to continue the accessibility coordination and advisory function within ITU-T in order to assist the Director of TSB in reporting the findings of the review of ITU-T services and facilities;

9 to consider using accessibility resources in the meetings organized by ITU-T in order to encourage the participation of persons with disabilities in the standardization process,

instructs the Telecommunication Standardization Advisory Group

1 to revise the guide for ITU study groups – "Considering End-User Needs in developing Recommendations",

2 to request study groups to facilitate, in their respective work, the implementation of new software, services and proposals enabling all persons with disabilities, including persons with age-related disabilities, to effectively use telecommunication/ICT services, and relevant guidelines for end-user needs, in order specifically to include the needs of persons with disabilities, and to update this guide on a regular basis, based on contributions from Member States and Sector Members as well as the ITU-T study groups, as appropriate.

RESOLUTION 71 (Rev. Dubai, 2012)

Admission of academia[1] to participate in the work of the ITU Telecommunication Standardization Sector

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) that Resolution 169 (Guadalajara, 2010) of the Plenipotentiary Conference established a new category of participation in ITU for academia and set a trial period for this new participation category until the next plenipotentiary conference;

b) that Resolution 38 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference considered the need to link ITU to the future of the information and communication technology (ICT) sector through youth activities;

c) that Resolution ITU-R 63 (Geneva, 2012) of the Radiocommunication Assembly noted that academia shall not have a role in decision-making and that representatives from academia may serve as a rapporteur;

d) that academia have significant roles in research, nurturing and development of emerging technologies and applications in the field of telecommunications/ICT, and that their participation in the work of the ITU Telecommunication Standardization Sector (ITU-T) is essential for ITU-T to remain at the cutting edge of technology standardization;

e) that the scientific contribution from academia will far outweigh the level of the financial contribution proposed to encourage them to participate, and that their participation will benefit the work of ITU-T, particularly as academia foster new technological developments in the Union's area of competence, with an eye to the future that permits the early nurturing of emerging technologies and their applications;

f) that academia shall not have a role in decision-making, including the adoption or approval of resolutions, Questions, reports and Recommendations, regardless of the approval procedure,

recognizing

a) Section 5.1.3 of Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the strategic plan for the Union for 2012-2015, which highlights the need to attract new members from industry and academia to participate in the work of ITU-T;

[1] This includes colleges, institutes, universities and their associated research establishments concerned with the development of telecommunications/ICT.

b) that Kaleidoscope, held annually since 2008, is an ITU initiative to strengthen cooperation with academia that has been highly successful and brought about cooperation between ITU-T and academia, thereby helping to foster dialogue between academia and experts working in the field of ICT standardization;

c) that various Kaleidoscope events since 2008 have addressed topics including "Innovations in NGN", "Innovations for digital inclusion", "Beyond the Internet? – Innovations for future networks and services", "The fully networked human? – Innovations for future networks and services" and "Building sustainable communities",

bearing in mind

that acceptance of applications for participation in ITU-T by academia shall be conditional on the support of the ITU Member States to which the academia belong, on the condition that this shall not constitute an alternative for academia currently listed with the Union as Sector Members or Associates,

resolves

1 to assess the participation of academia since the approval of Resolution 169 (Guadalajara, 2010);

2 to allow the participation of academia in the various ITU-T study groups, workshops and working parties and the Telecommunication Standardization Advisory Group (TSAG), bearing in mind that academia should not have a role in decision-making;

3 that academia shall be granted access to ITU-T documents;

4 that a representative from academia may serve as rapporteur;

5 to allow the participation of academia in the Global Standards Symposium (GSS) and the World Telecommunication Standardization Assembly (WTSA), in a non-advisory capacity;

6 to allow the participation of academia in WTSA side events and exhibitions;

7 to assign to TSAG study of the need for any additional measures and/or arrangements to facilitate the participation of academia and to benefit from their technical and intellectual expertise, and to report the results, through the Director of the Telecommunication Standardization Bureau, to the Council and to the next WTSA in 2016;

8 that the amount of the annual financial contribution for the participation of academia should be a reduced amount, particularly for academia in developing countries[2],

[2] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

instructs the Director of the Telecommunication Standardization Bureau

1 to continue his successful efforts to explore and recommend, based in part on advice from TSAG, various mechanisms, such as the use of voluntary financial and in-kind contributions, to encourage cooperation with, and facilitate the increased participation of, academia in all six regions[3];

2 to continue to organize the Kaleidoscope event annually and on the basis of rotation between the six regions, to the greatest extent possible;

3 to cooperate with ITU-TELECOM in order to spread awareness of the value of academia membership in ITU-T,

invites the Council

to consider, in submitting its report to the next plenipotentiary conference (Busan, 2014), the positive contribution to ITU's various activities made by academia, and recommend that academia continue to be admitted to participate in the work of the three Sectors of ITU on a permanent basis,

invites the ITU membership

to inform academia of this resolution and to support and encourage academia to join ITU-T and participate in its activities.

[3] Taking into account Resolution 58 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference in regard to the six regional telecommunication organizations, namely: the Asia-Pacific Telecommunity (APT), the European Conference of Postal and Telecommunications Administrations (CEPT), the Inter-American Telecommunications Commission (CITEL), the African Telecommunications Union (ATU), the Council of Arab Ministers of Telecommunication and Information represented by the Secretariat-General of the League of Arab States (LAS), and the Regional Commonwealth in the field of Communications (RCC).

RESOLUTION 72 (Rev. Dubai, 2012)

Measurement concerns related to human exposure to electromagnetic fields

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the importance of telecommunications and information and communication technologies (ICT) for political, economic, social and cultural progress;

b) that a significant part of the infrastructure needed to help bridge the digital divide between developed and developing countries[1] involves various wireless technologies;

c) that there is a need to inform the public of the potential effects of exposure to electromagnetic fields (EMF);

d) that an enormous amount of research has been carried out regarding wireless systems and health, and many independent expert committees have reviewed this research;

e) that the International Commission on Non-Ionizing Radiation Protection (ICNIRP), the International Electrotechnical Commission (IEC) and the Institute of Electrical and Electronics Engineers (IEEE) are three among a number of pre-eminent international bodies in establishing measurement methodologies for assessing human exposure to EMF, and they already cooperate with many standards bodies and industry forums;

f) that the World Health Organization (WHO) has issued fact sheets regarding EMF issues, including mobile terminals, base stations and wireless networks, referencing ICNIRP standards;

g) Resolution 176 (Guadalajara, 2010) of the Plenipotentiary Conference, on human exposure to and measurement of electromagnetic fields;

h) Resolution 62 (Hyderabad, 2010) of the World Telecommunication Development Conference, on measurement concerns related to human exposure to electromagnetic fields,

recognizing

a) the work done within ITU Radiocommunication Sector (ITU-R) study groups on radiowave propagation, electromagnetic compatibility (EMC) and related aspects, including measurement methods;

b) the work done within Study Group 5 of the ITU Telecommunication Standardization Sector (ITU-T) on techniques for taking radio-frequency (RF) measurements;

c) that Study Group 5, in establishing measurement methodologies for assessing human exposure to RF energy, already cooperates with many participating standards organizations (PSOs),

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

recognizing further

a) that some publications about EMF effects on health create doubt among the population, in particular in developing countries;

b) that, in the absence of regulation, people, in particular in developing countries, become more and more doubtful and are increasingly opposing the deployment of radio installations in their neighbourhoods;

c) that the cost of the equipment used for assessing human exposure to RF energy is very high, and that the equipment is more likely to be affordable only in developed countries;

d) that implementing such measurement is essential for many regulatory authorities, in particular in developing countries, in order to monitor the limits for human exposure to RF energy, and that they are called upon to ensure those limits are met in order to license different services,

noting

the similar activities carried out by other national, regional and international standards development organizations (SDOs),

resolves

to invite ITU-T, in particular Study Group 5, to expand and continue its work and support in this domain, including but not limited to:

i) disseminating information related to this topic through organizing workshops and seminars for regulators, operators and any interested stakeholders from developing countries;

ii) continuing to cooperate and collaborate with other organizations working on this topic and to leverage their work, in particular with a view to assisting the developing countries in the establishment of standards and in monitoring compliance with these standards, especially on telecommunication terminals;

iii) cooperating on these issues with ITU-R Study Groups 1 and 6, and with Study Group 1 of the ITU Telecommunication Development Sector (ITU-D) in the framework of Question 23/1;

iv) strengthening coordination with WHO so that any fact sheet relating to human exposure to electromagnetic fields is circulated to Member States as soon as it is issued,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Directors of the other two Bureaux, and within the available financial resources

1 to support the development of reports identifying the needs of developing countries on the issue of assessing human exposure to EMF, and submit the reports as soon as possible to ITU-T Study Group 5 for its consideration and action in accordance with its mandate;

2 to hold workshops in developing countries with presentations and training on the use of equipment employed in assessing human exposure to RF energy;

3 to support developing countries while they establish their regional centres equipped with test benches for monitoring conformance of telecommunication terminal equipment and human exposure to electromagnetic waves using, among other things, the modalities listed in Resolutions 44 (Rev. Dubai, 2012) and 76 (Rev. Dubai, 2012) of this assembly, in the context of the development of the regional test centres and of Resolution 177 (Guadalajara, 2010) of the Plenipotentiary Conference,

invites Member States and Sector Members

to contribute actively to the work of Study Group 5 in providing relevant and timely information in order to assist developing countries in providing information and addressing measurement concerns related to RF exposure and electromagnetic fields,

further invites Member States

to adopt suitable measures in order to ensure compliance with relevant international recommendations to protect health against the adverse effect of EMF.

RESOLUTION 73 (Rev. Dubai, 2012)

Information and communication technologies, environment and climate change

(Johannesburg, 2008, Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 35 (Kyoto, 1994) of the Plenipotentiary Conference, on telecommunication support for the protection of the environment;

b) Resolution 1307 (Geneva, 2009) of the ITU Council, on information and communication technologies (ICTs) and climate change;

c) Resolution 182 (Guadalajara, 2010) of the Plenipotentiary Conference, on the role of telecommunications/ICTs in regard to climate change and the protection of the environment;

d) Resolution 1353 (Geneva, 2012) of the Council, which recognizes that telecommunications and ICTs are essential components for developed and developing countries[1] in achieving sustainable development, and instructs the Secretary-General, in collaboration with the Directors of the Bureaux, to identify new activities to be undertaken by ITU to support developing countries in achieving sustainable development through telecommunications and ICTs,

considering

a) that the issue of the environment, including climate change, is rapidly emerging as a global concern and requires global collaboration;

b) that the United Nations Intergovernmental Panel on Climate Change (IPCC) estimated that global greenhouse gas (GHG) emissions had risen by more than 70 per cent since 1970, having an effect on global warming, changing weather patterns, rising sea-levels, desertification, shrinking ice cover and other long-term effects;

c) that ITU, at the United Nations Conference on Climate Change in Bali, Indonesia, on 3-14 December 2007, highlighted the role of ICTs as both a contributor to climate change, and an important element in tackling the challenge;

d) the work being undertaken following agreements to the Bali, Roadmap, Cancun Agreements and Durban Platform and the importance of reaching international agreement on an effective post-2012 outcome;

e) the role that ICTs and ITU can play in contributing to the implementation of such agreements;

f) the importance of promoting sustainable development and the ways in which ICTs can enable clean development;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

g) the initiatives taken in some regions;

h) that the e-waste African programme under the Basel Convention (Annexes VIII and IX) is a comprehensive programme initiative aiming to enhance the environmental governance of e-waste and to create favourable social and economic conditions for partnerships and small businesses in the recycling sector in Africa,

considering also

a) ITU Telecommunication Standardization Sector (ITU-T) Technology Watch Briefing Report No. 3 (2007), which highlighted the issue of climate change and the role of ICTs;

b) in addition to the work in ITU-T, the ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Development Sector (ITU-D) initiatives in considering climate change and the role of ICTs;

c) that ITU Recommendations focusing on energy-saving systems and applications can play a critical role in the development of ICTs;

d) the leadership of ITU-R, in collaboration with the ITU membership, in identifying the necessary radio-frequency spectrum for climate monitoring and disaster prediction, detection and relief, including the establishment of cooperative arrangements with the World Meteorological Organization (WMO) in the field of remote-sensing applications;

e) the report entitled "Strategy for a climate-neutral United Nations", prepared by the Environment Management Group, and the endorsement by the Chief Executives Board (CEB) in October 2007 of the strategy committing the United Nations system to attain climate neutrality;

f) the standards-development activities on ICTs and climate change by, for example, relevant ITU-T study groups in work related to ubiquitous sensor networks (USN), which allow the detection, storage, processing and integration of situational and environmental information gathered from sensor devices connected to telecommunication networks;

g) the outcomes of the symposia on "ICTs and Climate Change";

h) the activities and outcomes of the Focus Group on ICTs and Climate Change from July 2008 to April 2009;

i) that ITU-T Study Group 5 has led development of relevant standards to facilitate low-carbon ICTs and promote the adoption of low-carbon ICTs in other industries;

j) the responsibilities of Study Group 5, as the lead study group for study of the ICT environmental aspects of electromagnetic phenomena and climate change, including design methodologies to reduce environmental effects, such as recycling related to ICT facilities, equipment, etc.;

k) the work in the Joint Coordination Activity on ICT and Climate Change under ITU-T Study Group 5,

considering further

a) the outcome document adopted by Rio+20, entitled "The Future We Want", reflecting the renewed commitment to advancing sustainable development and achieving environmental sustainability;

b) that the outcome document recognizes that ICTs are facilitating the flow of information between governments and the public, highlighting the need to continue working towards improved access to ICT, especially broadband networks and services, and to bridge the digital divide, recognizing the contribution of international cooperation in this regard;

c) that the Rio+20 conference has called for further mainstreaming of the three dimensions of sustainable development throughout the United Nations system, inviting UN specialized agencies to consider appropriate measures for integrating the social, economic and environmental dimensions across the UN system's operational activities and to support developing countries upon request to achieve sustainable development,

noting

a) that, in the report of the conclusions from the 2008 Global Standards Symposium (GSS), it was recognized that the ICT industry and its members can set an example by committing to specific programmes, with objectives, that reduce overall GHG emissions (e.g. the power consumption of ICT devices) and to ensuring that the expansion of the global communications network is done in an environmentally-friendly manner;

b) the outcomes of the conferences of the United Nations Framework Convention on Climate Change (UNFCCC);

c) the Dynamic Coalition on Internet and Climate Change;

d) that there are other international forums that are working on climate-change issues with which ITU should cooperate,

recognizing

a) that ICTs can make a substantial contribution to mitigating and adapting to the effects of climate change;

b) that ICTs play a vital role in tackling environmental challenges such as climate change, e-waste, deforestation, lack of access to energy, energy consumption and biodiversity, by supporting basic scientific research, which has helped to bring the issue of climate change into the public domain and to raise awareness of future challenges;

c) that a future high-bandwidth, lower-carbon information society offers a platform for economic, social and cultural development that is sustainable;

d) that the adverse effects of climate change may be uneven in their impact and may fall disproportionately on the most vulnerable countries, mainly the developing countries, given their limited capacity to adapt;

e) that ICTs contribute approximately 2 - 2.5 per cent of GHG emissions, which may grow as ICTs become more widely available;

f) that ICTs can, however, be a major mitigating factor in efforts to moderate climate change and to limit and ultimately reduce GHG emissions and energy consumption through, for example, the development and introduction of energy-efficient devices, applications and networks;

g) that the use of ICTs as a key component of energy-efficient work methods could include the reduction of emissions through, for example, paperless meetings, virtual conferencing, teleworking, etc., which in turn would be beneficial in terms of reducing the need to travel;

h) that, as an actual case study, the Virtual International Symposium on ICTs and Climate Change was co-organized by ITU and Korea Communications Commission (KCC);

i) that ICTs are essential for climate monitoring, data gathering and rapid information transfer relating to risks of climate change, and that adequate telecommunication networks are essential in ensuring that communications reach people and the appropriate relief organizations;

j) that ICTs, through the development of smart grids, can enable wider access to electricity, better management of energy distribution, in particular in developing countries, and full exploitation of renewable sources;

k) that, since the energy consumption of the Internet, data centres and always-on connected devices will continue to grow, cloud computing is a critical enabling technology that can lead to energy efficiencies and accelerate the transition for countries and companies to a low-carbon economy;

l) that climate change endangers the quality and availability of water and food, by causing severe storms, heatwaves, droughts and floods, while worsening the quality of air;

m) that better water management using ICTs improves the overall efficiency of water use, leading to significant savings and more sustainable use of water resources;

n) that the widespread use of electrical and electronic equipment (EEE) has raised public awareness of its positive effects, such as reduction of the digital divide, but also of the negative environmental and health effects associated with inefficient waste management of end-of-life electrical and electronic equipment (WEEE or e-waste),

resolves

1 to continue and further develop the ITU-T work programme initially launched in December 2007 on ICTs and climate change, as a high priority, in order to contribute to the wider global efforts to moderate climate change, as part of the United Nations processes;

2 to take into account the progress already made in the international symposia on ICTs, environment and climate change, held in various parts of the world[2], by distributing their outcomes as widely as possible;

[2] Kyoto, Japan, 15-16 April 2008; London, United Kingdom, 17-18 June 2008; Quito, Ecuador, 8-10 July 2009; Seoul Virtual Symposium, 23 September 2009; Cairo, Egypt, 2-3 November 2010; Accra, Ghana, 7-8 July 2011; Seoul, Republic of Korea, 19 September 2011; and Montreal, Canada, on 29-31 May 2012.

3 to continue to maintain and update the ITU-T Global Portal on ICTs, environment and climate change, extending its features by developing an electronic and interactive forum to share information and to disseminate ideas, standards and best practices on the relationships between ICTs and environmental sustainability, experiences and practices for disclosure, labelling schemes and recycling facilities;

4 to promote the adoption of Recommendations for enhancing the use of ICTs to serve as a potent and cross-cutting tool to assess and reduce GHG emissions, optimize energy and water consumption, minimize e-waste and improve its management across economic and social activities;

5 to increase awareness and promote information sharing on the role of ICTs in enhancing environmental sustainability, in particular by promoting the use of more energy-efficient[3] devices and networks and more efficient working methods, as well as ICTs that can be used to replace or displace higher energy consuming technologies/uses;

6 to work towards the reductions in emissions of GHGs arising from the use of ICTs that are necessary to meet the goals of UNFCCC;

7 to work towards a reduction of the adverse environmental impact of environmentally unfriendly materials used in ICT products;

8 to bridge the standardization gap by providing technical assistance to countries to develop their national green ICT action plans, and develop a reporting mechanism in order to support countries in implementing their plan;

9 to set up e-learning programmes on Recommendations related to ICT, the environment and climate change,

instructs the Telecommunication Standardization Advisory Group

1 to coordinate the activities of ITU-T study groups in relation to their review of relevant standardization activities of other standards developing organizations (SDOs) and facilitate collaboration between ITU and those SDOs in order to avoid duplication of, or overlap in, international standards, through in particular the JCA on ICT and climate change;

2 to ensure that study groups carry out a review of both the appropriate existing ITU-T Recommendations and all future Recommendations to assess their implications and the application of best practices in the light of the protection of environment and climate change;

3 to consider further possible changes to working procedures in order to meet the objective of this resolution, including extending the use of electronic working methods to reduce the climate-change impact, such as paperless meetings, virtual conferencing, teleworking, etc.,

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[3] With respect to efficiency, promotion of efficient use of materials used in ICT devices and network elements should also be a consideration.

instructs all ITU-T study groups

1 to cooperate with Study Group 5 to develop appropriate Recommendations on ICTs, the environment and climate-change issues within the mandate and competency of ITU-T, including telecommunication networks used for monitoring and adapting to climate change, for example disaster preparedness, signalling and quality of service issues, taking into account any economic impact on all countries and in particular on developing countries;

2 to identify best practices and opportunities for new applications using ICTs to foster environmental sustainability, and to identify appropriate actions;

3 to liaise with the relevant ITU-R and ITU-D study groups and promote liaison with other standards development organizations and forums in order to avoid duplication of work, optimize the use of resources and accelerate the availability of global standards,

instructs the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of the other Bureaux

1 to report on progress on the application of this resolution annually to the ITU Council and to the 2016 world telecommunication standardization assembly;

2 to keep up to date the calendar of events relevant to ICTs, the environment and climate change based on proposals by TSAG and in close collaboration with the other two Sectors;

3 to launch pilot projects, aimed at bridging the standardization gap, on environmental sustainability issues, in particular in developing countries;

4 to support the development of reports on ICTs, the environment and climate change, taking into consideration relevant studies, in particular the ongoing work of Study Group 5, including issues related to, *inter alia*, green data centres, smart buildings, green ICT procurement, cloud computing, energy efficiency, smart transportation, smart logistics, smart grids, water management, adaptation to climate change and disaster preparedness, and how the ICT sector contributes to annual reductions in GHG emissions, and submit the reports as soon as possible to Study Group 5 for its consideration;

5 to organize workshops and seminars for developing countries, to raise awareness and identify their particular needs and challenges on environment and climate-change issues;

6 to report on progress of the ITU/WMO/UNESCO IOC Joint Task Force to investigate the potential of using submarine telecommunication cables for ocean and climate monitoring and disaster warning;

7 to promote the ITU-T Global Portal on ICTs, environment and climate change and its use as an electronic forum for exchange and dissemination of ideas, experience and best practices on ICTs, the environment and climate change;

8 to report to TSAG on the progress regarding *invites the Secretary-General* below,

invites the Secretary-General

to continue to cooperate and collaborate with other entities within the United Nations in formulating future international efforts for the effective addressing of climate change,

invites Member States, Sector Members and Associates

1 to continue to contribute actively to Study Group 5 and other ITU-T study groups on ICTs, the environment and climate change;

2 to continue or initiate public and private programmes that include ICTs, the environment and climate change, giving due consideration to relevant ITU-T Recommendations and relevant work;

3 to share best practices and raise awareness of the benefits associated with the use of green ICTs in accordance with ITU Recommendations related to the matter;

4 to promote the integration of ICT, climate, environment and energy policies in order to improve environmental performance and enhance energy efficiency and resource management;

5 to integrate the use of ICT into national adaptation plans to make use of ICTs as an enabling tool to address the effects of climate change;

6 to liaise with their national counterparts responsible for environmental issues in order to support and contribute to the wider United Nations process on climate change, by providing information and developing common proposals related to the role of telecommunications/ICTs in mitigating and adapting to the effects of climate change, so that they can be taken into consideration within UNFCCC.

RESOLUTION 74 (Rev. Dubai, 2012)

Admission of Sector Members[1] from developing countries in the work of the ITU Telecommunication Standardization Sector

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) that Article 1 of ITU Constitution establishes that the Union will facilitate the worldwide telecommunication standardization process with a satisfactory quality of service, and will promote and enhance participation of entities and organizations in the activities of the Union and foster a fruitful cooperation and partnership between them and Member States for the fulfilment of the overall objectives as embodied in the purposes of the Union;

b) Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the strategic plan for the Union for 2012-2015;

c) the spirit of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developing and developed countries;

d) the objectives of Resolutions 44 and 54 (Rev. Dubai, 2012) of this assembly,

considering

a) that relevant entities or organizations from developing countries are interested in the standardization work of the ITU Telecommunication Standardization Sector (ITU-T), and would be willing to join if more favourable financial conditions existed for their participation in the work of ITU-T;

b) that the aforementioned entities or organizations could have a relevant role in research and development of new technologies, and that the participation of entities from developing countries in the work of ITU-T helps to bridge the standardization gap,

resolves

to encourage the adoption of the necessary measures to enable new members from developing countries to join ITU-T and to be entitled to take part in the work of the ITU-T study groups and other groups within ITU-T, taking into consideration levels of financial contributions equal to those applied for developing countries for admission to the study groups in the ITU Telecommunication Development Sector (ITU-D).

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[1] Such Sector Members from developing countries shall not be affiliated in any way to any Sector Member of a developed country, and shall be limited to those Sector Members of developing countries (including the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition) having an income per capita according to the United Nations Development Programme not exceeding a threshold to be determined.

RESOLUTION 75 (Rev. Dubai, 2012)

The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the relevant outcomes of both phases of the World Summit on the Information Society (WSIS);

b) the relevant resolutions and decisions related to the implementation of relevant outcomes of both phases of WSIS and to international Internet-related public policy issues adopted at the Plenipotentiary Conference (Guadalajara, 2010) and the 2011 session of the ITU Council:

i) Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the strategic plan for the Union for 2012-2015;

ii) Resolution 101 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on Internet protocol-based networks;

iii) Resolution 102 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues pertaining to the Internet and the management of Internet resources, including domain names and addresses;

iv) Resolution 130 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on strengthening the role of ITU in building confidence and security in the use of information and communication technologies (ICT);

v) Resolution 133 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on the role of administrations of Member States in the management of internationalized (multilingual) domain names;

vi) Resolution 140 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in implementing the outcomes of WSIS;

vii) Decision 562 of the 2011 session of the ITU Council, on the convening of the fifth World Telecommunication/ICT Policy Forum (WTPF-13);

viii) Resolution 172 (Guadalajara, 2010) of the Plenipotentiary Conference, on overall review of implementation of the outcomes of WSIS;

ix) Resolution 178 (Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in organizing the work on technical aspects of telecommunication networks to support the Internet;

c) the role of the ITU Telecommunication Standardization Sector (ITU-T) in ITU implementation of relevant WSIS outcomes, adaptation of ITU's role and development of telecommunication standards in building the information society, including a lead facilitation role in the WSIS implementation process, as a moderator/facilitator for implementing Action Lines C2, C5 and C6 and participating with other stakeholders, as appropriate, in the implementation of Action Lines C1, C3, C4, C7, C8, C9 and C11 and all other relevant action lines and other WSIS outcomes, within the financial limits set by the Plenipotentiary Conference;

d) that the management of the Internet encompasses both technical and public policy issues and should involve all stakeholders and relevant intergovernmental and international organizations in accordance with §§ 35 *a)-e)* of the Tunis Agenda for the Information Society,

considering further

a) that the creation of the Council Working Group on international Internet-related public policy issues, in accordance with Council Resolution 1336, open to Member States only, was needed so as to promote enhanced cooperation and to foster the participation of governments in addressing international Internet public policy issues;

b) that there is a perceived need to improve coordination, dissemination and interaction: (i) by avoiding duplication of efforts through focused coordination between ITU's relevant study groups that deal with international Internet public policy issues and technical aspects of telecommunication networks to support the Internet; (ii) by disseminating relevant international Internet public policy information to the ITU membership, the General Secretariat and the Bureaux; (iii) by promoting enhanced cooperation and technical-oriented interaction between ITU and other relevant international organizations and entities,

recognizing

that the Plenipotentiary Conference, in Resolution 140 (Rev. Guadalajara, 2010), resolved that ITU should complete the report on the implementation of WSIS outcomes concerning ITU in 2014,

recognizing further

a) that all governments should have an equal role and responsibility for international Internet governance and for ensuring the stability, security and continuity of the Internet, while also recognizing the need for development of public policy by governments in consultation with all stakeholders, as expressed in § 68 of the Tunis Agenda;

b) the need for enhanced cooperation in the future, to enable governments, on an equal footing, to carry out their roles and responsibilities in international public policy issues pertaining to the Internet, but not in the day-to-day technical and operational matters that do not impact on international public policy issues, as expressed in § 69 of the Tunis Agenda,

c) that, using relevant international organizations, such cooperation should include the development of globally applicable principles on public policy issues associated with the coordination and management of critical Internet resources, in which regard the organizations responsible for essential tasks associated with the Internet are called upon to contribute to creating an environment that facilitates this development of public policy principles, as expressed in § 70 of the Tunis Agenda;

d) that the process towards enhanced cooperation, to be started by the United Nations Secretary-General, involving all relevant organizations by the end of the first quarter of 2006, will involve all stakeholders in their respective roles, will proceed as quickly as possible consistent with legal process and will be responsive to innovation; that relevant organizations should commence a process towards enhanced cooperation involving all stakeholders, proceeding as quickly as possible and responsive to innovation; and that the same relevant organizations shall be requested to provide annual performance reports, as expressed in § 71 of the Tunis Agenda,

taking into account

a) Resolution 30 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC), on the role of the ITU Telecommunication Development Sector in implementing the WSIS outcomes;

b) Resolution ITU-R 61 (Geneva, 2012) of the Radiocommunication Assembly, on ITU-R's contribution in implementing the WSIS outcomes;

c) the programmes, activities and regional initiatives being carried out in accordance with the decisions of WTDC-10 for bridging the digital divide;

d) the relevant work already accomplished and/or to be carried out by ITU under the guidance of the Council Working Group on WSIS (WG-WSIS) for implementation of the WSIS outcomes,

noting

a) Council Resolution 1332, on ITU's role in the implementation of the WSIS outcomes up to 2015 and future activities beyond WSIS+10;

b) Council Resolution 1334, on ITU's role in the overall review of the implementation of the WSIS outcomes;

c) Council Resolution 1336, on the Council Working Group on international Internet-related public policy issues,

noting further

that the ITU Secretary-General created the ITU WSIS Task Force, whose role is to formulate strategies and coordinate ITU's policies and activities in relation to WSIS, as noted by Council Resolution 1332,

resolves

1 to continue ITU-T's work on WSIS implementation and follow-up activities within its mandate;

2 that ITU-T should carry out those activities that come within its mandate and participate with other stakeholders, as appropriate, in the implementation of all relevant action lines and other WSIS outcomes,

3 that the relevant ITU-T study groups should consider in their studies the output of the Council Working Group on international Internet-related public policy issues,

instructs the Director of the Telecommunication Standardization Bureau

1 to provide WG-WSIS with a comprehensive summary of ITU-T activities on implementation of the WSIS outcomes;

2 to ensure that concrete objectives and deadlines for WSIS activities are developed and reflected in the operational plans of ITU-T in accordance with Resolution 140 (Rev. Guadalajara, 2010);

3 to provide information on emerging trends based on ITU-T activities;

4 to take appropriate action to facilitate the activities for implementation of this resolution,

invites Member States and Sector Members

1 to submit contributions to relevant ITU-T study groups and to the Telecommunication Standardization Advisory Group, where appropriate, and contribute to WG-WSIS on implementing WSIS outcomes within the ITU mandate;

2 to support and collaborate with the Director of TSB in implementing relevant WSIS outcomes in ITU-T,

invites Member States

to submit contributions to the Council Working Group on international Internet-related public policy issues.

RESOLUTION 76 (Rev. Dubai, 2012)

Studies related to conformance and interoperability testing, assistance to developing countries[1], and a possible future ITU Mark programme

(Johannesburg, 2008; Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) that interoperability of international telecommunication networks was the main reason to create the International Telegraph Union in the year 1865, and that this remains one of the main goals in the ITU strategic plan;

b) that conformity assessment is the accepted way of demonstrating that a product adheres to an international standard and is increasingly important in the context of World Trade Organization members' international standardization commitments under the Agreement on Technical Barriers to Trade;

c) that Recommendations ITU-T X.290 to ITU-T X.296 specify a general methodology for conformance testing of equipment to Recommendations of the ITU Telecommunication Standardization Sector (ITU-T);

d) that conformance testing does not guarantee interoperability but would increase the chance of interoperability of equipment conforming to ITU standards;

e) that very few of the current ITU-T Recommendations identify interoperability or conformance testing requirements;

f) that Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference instructs the Secretary-General and the Directors of the three Bureaux to work closely with each other in pursuing initiatives that assist in bridging the standardization gap between developing and developed countries;

g) that technical training and institutional capacity development for testing and certification are essential issues for countries to improve their conformity assessment processes, to promote the deployment of advanced telecommunication networks and to increase global connectivity;

h) that it is not appropriate for ITU itself to enter into certification and testing of equipment and services that many regional and national standards bodies also provide for conformance testing;

i) that Article 17 of the ITU Constitution, while providing that the functions of ITU-T shall fulfil the purposes of the Union relating to telecommunication standardization, stipulates that such functions are to be performed "bearing in mind the particular concerns of the developing countries";

j) the excellent results achieved by ITU in implementing the mark for Global Mobile Personal Communications Systems (GMPCS),

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

further recognizing

that providing for interoperability should be the ultimate aim of future ITU-T Recommendations,

considering

a) that there is an increasing number of complaints that equipment is often not fully interoperable with other equipment;

b) that some countries, especially the developing countries, have not yet acquired the capacity to test equipment and provide assurance to consumers in their countries;

c) that increased confidence in the conformance of information and communication technologies (ICT) equipment with ITU-T Recommendations would increase the chances of end-to-end interoperability of equipment from different manufacturers, and would assist developing countries in the choice of solutions;

d) that the 2012 session of the ITU Council in reviewing the ITU Conformance and Interoperability Business Plan for the long-term implementation of the conformance and interoperability (C&I) programme agreed on an action plan which in particular invited this assembly to identify the appropriate study group to address the Sector's activities related to the ITU C&I programme across all study groups,

e) that the Plenipotentiary Conference adopted Resolution 177 (Guadalajara, 2010);

f) that the World Telecommunication Standardization Assembly adopted Resolution 76 (Johannesburg, 2008);

g) that the World Telecommunication Development Conference adopted Resolution 47 (Rev. Hyderabad, 2010);

h) that the ITU Radiocommunication Assembly adopted Resolution ITU-R 62 (Geneva, 2012);

i) the progress reports presented by the Director of the Telecommunication Standardization Bureau to the Council at its 2009, 2010, 2011 and 2012 sessions and to the 2010 plenipotentiary conference;

j) the importance, especially to developing countries, that ITU takes up a leading role in interoperability issues, and that this is an objective expressed by the approval of the resolutions listed under *d)*, *e)*, *f)* and *g)* above and the proposed C&I programme is intended to address these demands;

k) the executive summary of the ITU Conformance and Interoperability Business Plan report, highlighting important issues regarding the four pillars of the ITU C&I programme, namely: 1- Conformance assessment; 2- Interoperability events; 3- Capacity building; and 4- Establishment of test centres in developing countries,

noting

a) that conformance and interoperability requirements to support testing are essential components for developing interoperable equipment that is based on ITU-T Recommendations;

b) that considerable practical experience exists within the ITU-T membership regarding the production of relevant testing standards and the testing procedures on which the actions proposed in this resolution are based;

c) the need to assist developing countries in facilitating solutions which will exhibit interoperability and reduce the cost of systems and equipment procurement by operators, particularly in the developing countries, whilst improving product quality;

d) that when interoperability experiments or testing have not been performed, users may have suffered from the lack of interconnection performance between equipment from different manufacturers,

taking into account

a) that ITU-T has in the past occasionally initiated conformance and interoperability testing, as reported in Supplement 2 to the ITU-T A-series Recommendations;

b) that the ITU standardization resources are limited and interoperability testing requires specific technical infrastructure;

c) that a different set of experts is required for writing test suites, interoperability testing standardization, product development and product testing;

d) that it is of advantage if interoperability testing is done by users of the standard who were not involved in the standardization process itself, rather than the standardization experts who have written the specifications;

e) that collaboration with external accreditation, conformity assessment and certification bodies is therefore necessary;

f) that forums, consortia and other organizations have already established certification programmes,

resolves

1 that ITU-T study groups develop the necessary conformance testing Recommendations for telecommunication equipment as soon as possible;

2 that ITU-T Study Group 11 coordinate the Sector's activities related to the ITU C&I programme across all study groups and review the recommendations in the Conformance and Interoperability Business Plan for the long-term implementation of the C&I programme;

3 that ITU-T Recommendations to address interoperability testing shall be progressed as quickly as possible;

4 that ITU-T, in collaboration with the other Sectors as appropriate, shall develop a programme to:

i) assist developing countries in identifying human and institutional capacity-building and training opportunities in conformance and interoperability testing;

ii) assist developing countries in establishing regional or subregional conformance and interoperability centres suitable to perform conformance and interoperability testing as appropriate encouraging cooperation with governmental and non-governmental, national and regional organizations and international accreditation and certification bodies;

5 that conformance and interoperability testing requirements shall provide for verification of the parameters defined in the current and future ITU-T Recommendations as determined by the study groups developing the Recommendations, and for interoperability testing to ensure interoperability taking into account user needs and in consideration of the market demand, as appropriate,

instructs the Director of the Telecommunication Standardization Bureau

1 in cooperation with the Radiocommunication Bureau and the Telecommunication Development Bureau (BDT), to continue to conduct as necessary exploratory activities in each region in order to identify and prioritize the problems faced by developing countries related to achieving interoperability of telecommunication/ICT equipment and services;

2 in cooperation with the Director of BDT, based on results of *instructs the Director of the Telecommunication Standardization Bureau* 1 above, to implement the action plan agreed by the Council at its 2012 session (Document C12/91) as referred to in the Report by the Secretary-General to the 2012 session of the Council (Document C12/48);

3 in cooperation with the Director of BDT to implement an ITU conformance and interoperability programme for possible introduction of an ITU Mark in alignment with the Council 2012 decision in C12/91;

4 to involve experts and external entities as appropriate;

5 to submit the results of these activities to the Council for its consideration and required actions,

instructs the study groups

1 to identify as soon as possible existing and future ITU-T Recommendations that would be candidates for conformance and interoperability testing, taking into account the needs of the membership (e.g. interoperability of next-generation network (NGN) and future network (FN) equipment, terminals, audio/video codecs, access and transport network, other key technologies), that are capable of providing end-to-end interoperable services on a global scale, adding to their content, if necessary, specific requirements within their scope;

2 to prepare the ITU-T Recommendations identified in *instructs the study groups* 1 above, with a view to conducting conformance and interoperability tests as appropriate;

3 to cooperate, as appropriate, with interested stakeholders to optimize studies to prepare test specifications especially for those technologies in *instructs the study groups* 1 above, taking into account user needs and in consideration of the market demand for a conformity assessment programme,

invites the Council

to consider the Director's report referred to in i*nstructs the Director of the Telecommunication Standardization Bureau* 5 above,

invites Member States and Sector Members

1 to contribute to the implementation of this resolution;

2 to encourage national and regional testing entities to assist ITU-T in implementing this resolution.

RESOLUTION 77 (Dubai, 2012)

Standardization work in the ITU Telecommunication Standardization Sector for software-defined networking

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the fact that software-defined networking (SDN) will profoundly change the telecommunication and information and communication technology (ICT) industry's landscape in the decades to come;

b) the multiple benefits that SDN can bring for the telecommunication/ICT industry;

c) the rapidly growing interest in the use of SDN in the telecommunication/ICT industry on the part of a significant number of companies;

d) that a broad application of SDN will require a system of deployable standards which are not yet in place,

noting

a) that the ITU Telecommunication Standardization Sector (ITU-T) should play a leading role in the development of the above-mentioned system of deployable SDN standards;

b) that a standards ecosystem should be created with ITU-T at its centre,

recognizing

a) that ITU-T has unmatched advantages when it comes to requirements and architecture standards;

b) that a solid foundation is first required in terms of SDN requirements and architecture standards, so that the whole set of standards may be built through an industry-wide synergy;

c) that ITU-T Study Group 13 has been involved in the study of SDN in the development of future networks and is collaborating with relevant standards development organizations (SDOs),

resolves to instruct ITU-T Study Group 13

1 to organize the necessary structures within Study Group 13 to expand and accelerate the work on SDN architecture and requirements, starting with its first meeting in the next study period;

2 to make recommendations to the Telecommunication Standardization Advisory Group on how to address the topics that are outside the mandate of Study Group 13,

instructs the Telecommunication Standardization Advisory Group

to examine the matter, consider the input of Study Group 13 and other relevant study groups and take the necessary actions, as appropriate, with a view to deciding on the necessary SDN standardization activities in ITU-T, with the following actions:

- identify the relevant study group(s) in which to follow up actions and establish a suitable organizational arrangement on SDN;
- coordinate the work on technical issues of SDN across the study groups according to their areas of expertise;
- promote collaboration with other SDN-related standards bodies and forums;
- define a clear strategic vision for SDN standardization and an important active role that ITU-T should play,

instructs the Director of the Telecommunication Standardization Bureau

1 to provide the necessary assistance with a view to expediting such efforts, in particular using any opportunity within the allocated budget to exchange opinions with the telecommunication/ICT industry including through the chief technology officer (CTO) meetings (under Resolution 68 (Rev. Dubai, 2012) of this assembly) and in particular to promote participation of the industry in SDN standardization work in ITU-T;

2 to organize a workshop on SDN in 2013 in order to promote SDN within ITU-T,

invites Member States, Sector Members, Associates and academia

to submit contributions for developing SDN standardization in ITU-T.

RESOLUTION 78 (Dubai, 2012)

Information and communication technology applications and standards for improved access to e-health services

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 183 (Guadalajara, 2010) of the Plenipotentiary Conference, on telecommunication/information and communication technology (ICT) applications for e-health;

b) Resolution 65 (Hyderabad, 2010) of the World Telecommunication Development Conference, on improving access to healthcare services by using ICTs,

recognizing

a) the importance of safeguarding patients' rights and privacy;

b) that there are national legislative and regulatory discussions relating to e-health and e-health applications and that this is an area of rapid evolution,

considering

a) that the World Summit on the Information Society, which was held in two phases (Geneva, 2003 and Tunis, 2005), included e-health in the Geneva Plan of Action as one of the important ICT applications, and stated the following: "Promote collaborative efforts of governments, planners, health professionals, and other agencies along with the participation of international organizations for creating a reliable, timely, high-quality and affordable healthcare and health information systems and for promoting continuous medical training, education, and research through the use of ICTs, while respecting and protecting citizens' right to privacy. … Encourage the adoption of ICTs to improve and extend healthcare and health information systems to remote and underserved areas and vulnerable populations, recognizing women's roles as health providers in their families and communities";

b) that the World Health Organization (WHO) approved in May 2005 Resolution WHA58.28 on e-health, stressing: "… that e-health is the cost-effective and secure use of information and communication technologies in support of health and health-related fields, including healthcare services, health surveillance, health literature, and health education, knowledge and research";

c) that WHO and ITU have a key role in strengthening coordination between interested parties in all technical areas for the standardization of e-health applications and uses of e-health protocols;

d) the pressing need for the provision of safe, prompt, efficient and effective healthcare to the sick through the use of ICT in e-health;

e) that e-health applications and the ICT applications supporting them are already extensive, but far from fully optimized and integrated;

f) the importance of maintaining momentum so that the potential advantages of telecommunication/ICT technologies in the healthcare sector are supported by appropriate and secure regulatory, legal and policy frameworks in both the telecommunication and the health sectors,

noting

a) ongoing work and studies in Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) under Question 14-3/2, on information and telecommunications/ICT for e-health;

b) ongoing work and studies in Study Group 16 of the ITU Telecommunication Standardization Sector (ITU-T) under Question 28/16, on multimedia framework for e-health applications;

c) that ICT standards for healthcare were deemed to be an issue of major importance at the 13th session of the Global Standards Collaboration (GSC-13);

d) that ICT standards relating to healthcare have to be adapted as needed to suit the conditions in each Member State, and this will require strengthening of capacity building and increased support;

e) ongoing work in ITU-D to reduce the digital divide in the area of e-health,

resolves to instruct the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau and the Director of the Radiocommunication Bureau

1 to consider with priority the enhancement of telecommunication/ICT initiatives in e-health and to coordinate their related standardization activities;

2 to continue and further develop ITU activities on telecommunication/ICT applications for e-health in order to contribute to the wider global efforts concerning e-health;

3 to work collaboratively with WHO, academia and other relevant organizations on activities related to e-health;

4 to study the possibility of organizing a global conference in 2013 or 2015 for the standardization of e-health applications and uses of e-health protocols, in collaboration with WHO and other interested parties;

5 to organize seminars and workshops on e-health for developing countries[1] and gauge the needs of the developing countries, which are the countries with the greatest need for e-health applications,

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

instructs ITU-T Study Group 16, in collaboration with the relevant study groups, particularly ITU-T Study Groups 11 and 17

1 to identify and document examples of best practice for e-health in the field of telecommunications/ICT, for dissemination among ITU Member States and Sector Members;

2 to coordinate activities and studies relating to e-health among the relevant study groups, focus groups and other relevant groups in ITU-T, the ITU Radiocommunication Sector (ITU-R) and ITU-D, in order in particular to foster awareness of telecommunication/ICT standards pertaining to e-health;

3 to study communication protocols relating to e-health, especially among heterogeneous networks, for ensuring the broad deployment of e-health services in diverse operating conditions;

4 within the current mandate of the ITU-T study groups, to give priority to the study of security standards (e.g. for communications, services, network aspects and service scenarios for databases and record handling, identification, integrity and authentication) relating to e-health, taking into account *recognizing a)*,

invites Member States

to consider, as appropriate, the development and/or enhancement of frameworks which may include legislation, regulations, standards, codes of practice and guidelines to enhance the development of telecommunication/ICT services, products and terminals for e-health and e-health applications, within the scope of Resolution 130 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

encourages Member States, Sector Members and academia

to participate actively in ITU-T studies on e-health, through the submission of contributions and by other appropriate means.

RESOLUTION 79 (Dubai, 2012)

The role of telecommunications/information and communication technologies in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recalling

a) Resolution 182 (Guadalajara, 2010) of the Plenipotentiary Conference, on the role of telecommunications/information and communication technologies (ICT) in regard to climate change and the protection of the environment;

b) Resolution 66 (Hyderabad, 2010) of the World Telecommunication Development Conference, on information and communication technology and climate change;

c) § 19 of the Hyderabad Declaration (2010), stating that the formulation and implementation of policies for proper disposal of e-waste are of great importance;

d) the Basel Convention (March, 1989) on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, which characterizes certain wastes resulting from electrical and electronic assemblies as hazardous;

e) § 20 of Action Line C7 (E-environment) of the Geneva Plan of Action of the World Summit on the Information Society (Geneva, 2003), calling for governments, civil society and the private sector to be encouraged to initiate actions and implement projects and programmes for sustainable production and consumption and the environmentally safe disposal and recycling of discarded hardware and components used in ICT;

f) the Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic Waste, and the adoption by the ninth Conference of the Parties to the Basel Convention of the Work Plan for the Environmentally Sound Management of E-waste, focusing on the needs of developing countries[1],

considering

a) that, owing to the progress in telecommunications and information technology, consumption of and demand for electrical and electronic equipment (EEE) has been continuously increasing and this in turn has led to a marked increase in the amount of e-waste, which has had a negative impact on the environment and health, particularly in the developing countries;

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) that ITU and relevant stakeholders (such as the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) for the Basel Convention) have a key role in strengthening coordination between interested parties to study the effects of e-waste;

c) Recommendation ITU-T L.1000 of the ITU Telecommunication Standardization Sector (ITU-T), on the universal power adapter and charger solution for mobile terminals and other handheld ICT devices, and Recommendation ITU-T L.1100, on the procedure for recycling rare metals in ICT goods,

recognizing

a) that governments have an important role to play in limiting e-waste by formulating appropriate strategies, policies and legislation;

b) that telecommunications/ICT can make a major contribution to alleviating the impact of e-waste;

c) ongoing work and studies in ITU-T Study Group 5 under Question 13/5, on environmental protection and recycling of ICT equipment/facilities;

d) ongoing work and studies in Study Group 1 of the Telecommunication Development Sector (ITU-D) under Question 24/1, on strategies and policies for the proper disposal or reuse of telecommunication/ICT waste material,

recognizing further

a) that large quantities of used, old, obsolete and unserviceable telecommunication/ICT hardware and equipment are exported to developing countries for supposed reuse;

b) that many developing countries are suffering from severe environmental hazards, such as water pollution and health risks, due to e-waste, for which they may not be responsible,

resolves to instruct the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau

1 to pursue and strengthen the development of ITU activities in regard to handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it;

2 to assist developing countries to undertake proper assessment of the size of e-waste;

3 to address the handling and controlling of e-waste and to contribute to global efforts designed to deal with the increasing hazards which arise therefrom;

4 to work in collaboration with the relevant stakeholders, including academia and relevant organizations, and to coordinate activities relating to e-waste among the ITU study groups, focus groups and other relevant groups;

5 to organize seminars and workshops to enhance awareness of the hazards of e-waste and the methods of treating it, particularly in developing countries, and gauge the needs of the developing countries, which are the countries that suffer most from the hazards of e-waste,

instructs ITU-T Study Group 5, in collaboration with the relevant ITU study groups

1 to develop and document examples of best practice for handling and controlling e-waste resulting from telecommunications/ICT and methods of treating and recycling it, for dissemination among ITU Member States and Sector Members;

2 to develop Recommendations, methodologies and other publications relating to handling and controlling e-waste resulting from telecommunications/ICT and methods of treating it, within the relevant study groups, focus groups and other relevant groups in ITU, in order, in particular, to foster awareness of the environmental hazards of e-waste;

3 to study the impact of used telecommunication/ICT equipment and products brought into developing countries and give appropriate guidance, taking into account *recognizing further* above, to assist developing countries,

invites Member States

1 to take all necessary measures to handle and control e-waste in order to mitigate the hazards which can arise from used telecommunication/ICT equipment;

2 to cooperate with each other in this area;

3 to include e-waste management policies in their national ICT strategies,

encourages Member States, Sector Members and academia

to participate actively in ITU-T studies on e-waste, through the submission of contributions and by other appropriate means.

RESOLUTION 80 (Dubai, 2012)

Acknowledging the active involvement of the membership in the development of ITU Telecommunication Standardization Sector deliverables

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

recognizing

a) Resolution 66 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, which recognizes that the copyright held by the Union on its publications cannot be breached;

b) Resolution 71 (Rev. Dubai, 2012) of this assembly,

considering

a) that the ITU Telecommunication Standardization Sector (ITU-T) has been encouraging and facilitating the involvement of academia, universities and associated research establishments, seeking to set up a broader forum for discussions on established and innovative technologies;

b) that the productivity of professionals from academia, universities and associated research establishments is constantly evaluated;

c) that, in general, the evaluation of professionals from academia, universities and associated research establishments takes the form of evaluating items such as books, papers published, research projects accomplished, approval of their project proposals by funding agencies and their career development programmes;

d) that neither the authorship of contributions to study group deliverables nor the editorship of Recommendations and technical papers are currently considered in the evaluation of the productivity of professionals from academia, universities and associated research establishments;

e) that the acknowledgement of contributors will promote greater participation and membership,

resolves

that it is important to acknowledge significant contributors to the work of ITU-T,

instructs the Director of the Telecommunication Standardization Bureau

to acknowledge the value of active participation of the membership, in particular academia, universities and their associated research establishments, in the standardization activities of ITU, by collaborating closely with Member States and their respective bodies that formulate public policies in areas such as education, science and technology and industry and commerce in order to highlight the importance of contribution to ITU-T study group deliverables,

instructs the Telecommunication Standardization Advisory Group

1 to study options on how to clearly acknowledge significant contributors to the development of study group deliverables;

2 to define, in consultation with the ITU membership, objective criteria that will guide study groups in identifying such significant contributors,

invites Member States

to consider, as appropriate, the participation of academia in the ITU-T contribution process and to provide visibility and acknowledgment of their contributions, editorships and other outputs so that they may be considered as eligible activities for research and development productivity evaluation.

RESOLUTION 81 (Dubai, 2012)

Strengthening collaboration

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the responsibilities of the Telecommunication Standardization Advisory Group (TSAG), as outlined in Article 14A of the ITU Convention, which include, pursuant to No. 197F thereof, recommending measures, *inter alia*, to foster cooperation and coordination with other relevant bodies, with the Radiocommunication Sector, the Telecommunication Development Sector and the General Secretariat;

b) Resolution 22 (Rev. Dubai, 2012) of this assembly, on authorization for TSAG to act between world telecommunication standardization assemblies (WTSAs), which sets out the mandate and duties of TSAG consistent with the responsibilities outlined in Article 14A of the Convention;

c) that ITU Telecommunication Standardization Sector (ITU-T) external cooperation is guided by relevant WTSA resolutions, ITU-T A-series Recommendations and Supplements;

d) that there are current models for collaboration between standards bodies such as the World Standards Cooperation (WSC), involving ITU and ISO/IEC, and the Global Standards Collaboration (GSC), involving a number of participating standards organizations, including ITU, as well as the collaborative activities involving ITU associated with the development of a globally harmonized set of intelligent transportation system (ITS) communication standards;

e) that Resolution 1 (Rev. Dubai, 2012) of this assembly, on rules of procedure of ITU-T, makes it very clear that cooperation with other relevant standards bodies is desirable;

f) that ITU has established a number of memoranda of understanding with relevant major standards bodies, the key objective being to improve collaboration;

g) that the chief technology officers (CTO) meeting in 2012 continued to work towards a new approach to international standardization based on improved collaboration, cooperation and coordination with other organizations, and that ITU-T is asked to continue to promote an industry-led, consensus-based approach to standardization;

h) that the Global Standards Symposium (GSS) in 2012 recognized that a collaborative mechanism should be developed between related standards bodies to identify new work areas at an early stage, and agree on a common approach in order to bring the respective skills of the different bodies together in a cooperative manner for the purpose of developing common global standards,

resolves

1 that an action plan be developed by TSAG, which will result in:

- the identification of areas where improvement is required, taking into account CTO meeting outcomes and the results of GSS;
- the development of a mechanism within ITU-T to achieve this objective; and
- documentation of the mechanism developed, defining specific steps on how to improve coordination with other relevant standards bodies regarding the development of new Questions that are intended to address new domains and new work items under such Questions;

2 that this mechanism, which could take the form of a working party or group of TSAG, and which may work additionally between TSAG meetings in order to ensure continuity of the discussions on this topic, should:

- work, as required, including the socialization of ITU-T's desire to work cooperatively with the relevant standards bodies to improve cooperation; and
- provide a report to TSAG, containing the outcome of the actions taken, which will be subsequently submitted to WTSA-16,

invites the Telecommunication Standardization Advisory Group

to establish and maintain a close relationship with the Review Committee in order to develop synergies for the development of Recommendations addressing the objective of strengthening collaboration between ITU-T and other standards bodies.

RESOLUTION 82 (Dubai, 2012)

Strategic and structural review of the ITU Telecommunication Standardization Sector

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

noting

a) that the ITU Telecommunication Standardization Sector (ITU-T) is a unique global standardization body in the telecommunication field comprising governments, regulators, manufacturers, operators, academia and other related bodies;

b) that, under Article 17 of the ITU Constitution, ITU-T, bearing in mind the particular concerns of the developing countries, is to fulfil the purposes of the Union relating to telecommunication standardization by studying technical, operating and tariff questions and adopting Recommendations on them with a view to standardizing telecommunications on a worldwide basis;

c) that, under Article 13 of the ITU Convention, the World Telecommunication Standardization Assembly (WTSA) is required, *inter alia*, to approve the programme of work for ITU-T for each study period and to determine the priority, urgency, estimated financial implications and time-scale for the completion of studies;

d) that Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference resolves that WTSA shall adequately address strategic issues in standardization, and encourages Member States, ITU-T Sector Members and study group chairmen and vice-chairmen to concentrate, *inter alia*, on the identification and analysis of strategic issues in standardization in their preparations for WTSA so as to facilitate the work of the assembly;

e) that, under Article 50 of the Constitution, the Union should cooperate with international organizations having related interests and activities;

f) Resolution 22 (Rev. Dubai, 2012) of this assembly, on authorization for the Telecommunication Standardization Advisory Group (TSAG) to act between WTSAs;

g) that Resolution 68 (Rev. Dubai, 2012) of this assembly instructs the Director of the Telecommunication Standardization Bureau (TSB) to organize meetings for high-level industry executives, e.g. chief technology officer (CTO) meetings, in order to assist in identifying and coordinating standardization priorities and subjects to minimize the number of forums and consortia,

considering

a) that ITU-T conducts studies responding to changing technology and market needs, and should do so in a timely and appropriate manner;

b) that ITU-T Recommendations are developed in study groups corresponding to specific aspects, and a number of efforts have been made to facilitate coordination among study groups, such as Resolution 45 (Rev. Dubai, 2012) of this assembly;

c) that, in addition to designated lead study groups, joint coordination activities (JCA), global standards initiatives (GSI), technical and strategic reviews (TSR) and focus groups (FG) are established for the study of issues and effective coordination among ITU-T study groups and other standards organizations;

d) that, in today's standardization environment, the current structure and work methods of ITU-T could evolve to respond more fully to the rapid change in technologies and market needs in a timely and appropriate manner as well as enhance coordination of activities of all study groups of ITU-T, the ITU Radiocommunication Sector (ITU-R), the ITU Telecommunication Development Sector (ITU-D) and other, external organizations;

recognizing

a) that overall coordination of JCAs, FG and other ITU-T groups might be needed;

b) that, in terms of the structure of ITU-T, there are still some views that study groups should be restructured and/or current structural arrangements, including the purpose and objectives of JCAs, GSIs, TSRs, FGs, etc., should be examined;

c) that there is a need to consider improvements in coordination and collaboration arrangements between ITU-T and ITU-R, ITU-D, other standards-making entities and other relevant entities, while avoiding overlap with TSAG functions under No. 197F (Article 14A) of the Convention;

d) that, under Article 13 of the Convention, WTSA can establish other groups,

resolves

to establish, in accordance with Nos 191A and 191B of the Convention, a review committee functioning in accordance with the relevant provisions of Article 14A of the Convention and the procedures provided below, and with the terms of reference as described in Annex A to this resolution, taking account of today's standardization environment and of the continued evolution of ITU-T;

instructs the Review Committee

1 to report to TSAG on regular basis;

2 to consider the outcomes of the CTO meetings, in particular their reports;

3 to conduct its initial review in a timely manner so as to provide input to TSAG for the preparation of the ITU-T strategic plan;

4 to submit its report to the next WTSA through TSAG,

instructs the Telecommunication Standardization Advisory Group

1 to consider the Review Committee progress reports, and in conformity with Article 14A of the Convention, implement, as appropriate, any recommendations, pending consideration at the next WTSA,

2 to submit the final report of the Review Committee, without changes, to WTSA, together with its comments thereon,

instructs the Director of the Telecommunication Standardization Bureau

1 to support the Review Committee by facilitating the activities in implementing this resolution;

2 to provide fellowships to eligible developing countries.

ANNEX A
(to Resolution 82)

Review Committee – Terms of Reference

1 Examine the adequacy of the current structure of ITU-T to facilitate the Sector's continued evolution and to deal with the increasing demands for timely and appropriate results to meet market demand, taking account of the current and future standardization environment.

2 Review the current coordination and collaborations mechanisms with other standards bodies and propose improvements.

3 Review existing models for collaboration between ITU-T and other standards bodies, given the accelerated rate of change in the worldwide standardization landscape, and the rapidly evolving needs of consumers/users of global standards.

4 Identify and propose new modalities for cooperation and collaboration based on mutual respect and recognition of evolving roles and responsibilities in the standards sphere.

5 Identify ways and means to enhance cooperation with other standards bodies, with a view to minimizing conflict of their standards with ITU-T standards.

6 Develop and propose recommendations for a set of principles for standards development within ITU-T that facilitate interoperability and promote further innovation.

7 Develop a work plan by which to conduct the review, and establish the structure of the report.

8 Conduct its initial review in a timely manner so as to provide input to TSAG for preparation of the ITU-T strategic plan in accordance with Article 14A of the Convention.

9 The Review Committee is established by this assembly and shall present its report to WTSA-16 without changes through TSAG. In addition, the Review Committee shall report its progress to TSAG on a regular basis and take into account the comments made by TSAG on the progress report.

10 Taking into account the role and functions of TSAG, as outlined in Article 14A of the Convention, the Review Committee shall provide reports to TSAG, with a view to, *inter alia*, identifying any specific actions which could be undertaken or implemented in the near term, and/or those which could be conveyed by means of a report from the Director of TSB for decision by the Plenipotentiary Conference.

11 The Review Committee is open to:

a) ITU-T Member States, Sector Members and academia[1];

b) representatives of other organizations not covered in a) above, to join the meetings where the subject matter of these other organizations is discussed, together with other experts, including Associates, invited by the chairman in consultation with the vice-chairmen and the Director of TSB.

12 To enhance participation of the regions, the Review Committee shall work with the existing ITU regional groups, including the regional groups of the ITU-T study groups, and take into consideration their contributions. The Review Committee shall coordinate with the Director of TSB, to ensure the provision of fellowships for one participant from each eligible developing country.

13 The Review Committee shall operate in English or the six official languages if so requested. Reports to TSAG shall be translated in the six official languages of the Union.

14 The meetings of the Review Committee shall be paperless and shall make use of electronic working methods in accordance with Resolution 32 (Rev. Dubai, 2012) of this assembly.

15 The Review Committee shall meet immediately prior to TSAG.

16 The duration of each Review Committee meeting shall not exceed three working days.

17 The management team of the Review Committee shall consist of a chairman and up to six vice-chairmen, taking into account equitable geographical distribution.

18 The final report of the Review Committee shall be translated and made available to the final TSAG meeting before WTSA-16. The Review Committee shall end in 2016, unless WTSA-16 decides to renew it.

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[1] In accordance with Resolution 169 (Guadalajara, 2010) of the Plenipotentiary Conference, on the admission of academia, universities and their associated research establishments to participate in the work of the three Sectors of the Union, academia should not have a role in decision-making.

OPINION 1 (Dubai, 2012)

Practical application of network externality premium

(Dubai, 2012)

The World Telecommunication Standardization Assembly (Dubai, 2012),

considering

a) the Tunis Agenda for the Information Society (Tunis, 2005);

b) Resolution 22 (Rev. Antalya, 2006) of the Plenipotentiary Conference, on the distribution of revenues in the provision of international telecommunications services;

c) the approval by the World Telecommunication Standardization Assembly (Johannesburg, 2008) (WTSA-08) of Recommendation ITU-T D.156, on network externalities,

noting

that some Member States have expressed reservations on this Recommendation and requested that clarification be made on some issues and a practical model be developed to calculate the value of the network externality premium,

considering further

a) the approval by Study Group 3 of the ITU Telecommunication Standardization Sector (ITU-T) in May 2010 of Annex A to Recommendation ITU-T D.156, on the practical implementation of Recommendation ITU-T D.156, which provides answers to questions that had been raised;

b) the approval by Study Group 3 in September 2012 of Annex B to Recommendation ITU-T D.156, on determination of the value of the network externality premium, which offers a practical method of calculating this premium,

is of the opinion that

in view of the progress achieved so far within Study Group 3, the Member States concerned may wish to review the respective positions adopted at WTSA-08 and possibly withdraw the reservations regarding Recommendation ITU-T D.156,

invites Member States

to take all measures necessary for the effective implementation of Recommendation ITU-T D.156,

invites the Council

at its 2013 session, to report on this subject to the 2014 plenipotentiary conference, in accordance with Resolution 22 (Rev. Antalya, 2006).

PART 2

ITU-T A-series Recommendations: organization of the work of the ITU Telecommunication Standardization Sector

CONTENTS

Recommendation ITU-T A.1

Working methods for study groups of the ITU Telecommunication Standardization Sector

(1996; 2000; 2004; 2006; 2008; 2012)

1 Study groups and their relevant groups

1.1 Frequency of meetings

1.1.1 Study groups meet to facilitate the approval of Recommendations. Such meetings shall only be held with the approval of the Director of the Telecommunication Standardization Bureau (TSB), and with due consideration of the physical and budgetary capabilities of the ITU Telecommunication Standardization Sector (ITU-T). To minimize the number of meetings required, every effort should be made to resolve questions by correspondence (No. 245 of the ITU Convention).

1.1.2 In the establishment of the work programme, the timetable of meetings must take into account the time required for participating bodies (administrations of Member States and other duly authorized entities) to react and prepare contributions. Meetings should not be held more frequently than is necessary to make effective progress and should take into account TSB's capabilities to provide the necessary documentation. A meeting scheduled so that its separation from a preceding meeting, upon which it depends, is less than six months may incur the possibility of full documentation from the previous meeting not being available.

1.1.3 Meetings of study groups having common interests or dealing with problems possessing affinities should, if possible, be arranged so as to enable participating bodies to send one delegate or representative to cover several meetings. As far as possible, the arrangement chosen should enable the study groups meeting during the period to exchange any information they may require without delay. Furthermore, it should enable specialists from all over the world in the same or related subjects to have direct contacts with each other of benefit to their organizations. It should likewise enable the specialists concerned to avoid leaving their home countries too often.

1.1.4 The timetable of meetings shall be prepared and communicated to participating bodies well in advance (one year), to give time to study problems and submit contributions within the prescribed time-limits and to give TSB time to distribute the contributions. In this way, study group chairmen and delegates will be given the opportunity to consider the contributions in advance, thus helping to make meetings more efficient and reduce their length. A study group chairman, in conjunction with the Director, may schedule short additional study group or working party meetings for the purpose of making the consent, determination or decision, as appropriate, on a draft new or revised Recommendation.

1.1.5 Subject to physical and budgetary limitations and in consultation with the Director, the work of the study groups should be on a continuous basis and dissociated from the interval between WTSAs.

1.2 Coordination of work

1.2.1 A joint coordination activity (JCA) may be formed to coordinate work relating to more than one study group. Its primary role is to harmonize planned work effort in terms of subject matter, time-frames for meetings and publication goals (see clause 2.2).

1.3 Preparation of studies and meetings

1.3.1 At the beginning of each study period, an organization proposal and an action plan for the study period shall be prepared by each study group chairman with the help of TSB. The plan should take into account any priorities and coordination arrangements, recommended by the Telecommunication Standardization Advisory Group (TSAG) or decided by the World Telecommunication Standardization Assembly (WTSA).

How the proposed action plan is implemented will depend upon the contributions received from the members of ITU-T and the views expressed by participants in the meetings.

1.3.2 A collective letter with an agenda of the meeting, a draft work plan and a listing of the Questions or proposals under the general areas of responsibility to be examined, shall be prepared by TSB with the help of the chairman.

The work plan should state which items are to be studied on each day, but it must be regarded as subject to change in the light of the rate at which work proceeds. Chairmen should try to follow it as far as possible.

This collective letter should be received by bodies participating in the activities of particular ITU-T study groups, as far as practicable, two months before the beginning of the meeting. The collective letter shall include registration information for these bodies to indicate participation in the meeting. Each Member State administration, Sector Member, Associate and regional or international organization should send to TSB a list of its participants at least one month before the start of the meeting. In the event that names cannot be provided, the expected number of participants should be indicated. Such information will facilitate the registration process and the timely preparation of registration materials. Individuals who attend the meeting without pre-registration may experience a delay in receiving their documents.

If the meeting in question has not been previously planned and scheduled, a collective letter should be received at least three months before the meeting.

1.3.3 If an insufficient number of contributions or notification of contributions has been submitted, no meeting should be held. The decision whether to cancel a meeting or not shall be taken by the Director, in agreement with the chairman of the study group or working party concerned.

1.4 Conduct of meetings

1.4.1 The chairman shall direct the debates during the meeting, with the assistance of TSB.

1.4.2 The chairman is authorized to decide that there shall be no discussion on Questions on which insufficient contributions have been received.

1.4.3 Questions which have not elicited any contributions should not be placed on the final agenda of the meeting, and according to provisions of 7.4.1 of WTSA Resolution 1, may be deleted if no contributions have been received for the previous two study group meetings.

1.4.4 Study groups and working parties may set up working teams (which should be as small as possible and are subject to the normal rules of the study group or working party) during their meetings, to study Questions allocated to those study groups and working parties.

1.4.5 For projects involving more than one study group, baseline documents may be prepared in order to provide the basis for coordinated study among the various study groups. The term "baseline document" refers to a document which contains the elements of common agreement at a given point in time.

1.4.6 Chairmen will ask, during each meeting, whether anyone has knowledge of patents or software copyrights, the use of which may be required to implement the Recommendation being considered. The fact that the question was asked shall be recorded in the working party or study group meeting report, along with any affirmative responses.

1.4.7 Study groups shall establish and maintain a work programme, which includes target dates for consenting or determining each draft Recommendation. The work programme is available in a database which is searchable from the study group website. For each work item under development, the database contains the Recommendation number (or provisional mnemonic designation), the title, scope, editor, timing, priority, identification of any liaison relationships, any editor assigned, the location of the most recent text, the approval process, and the status for documents in the approval process. The database is updated to reflect progress or completion of work, re-planning of in-progress items, or addition of new work items.

The decision to add a new work item to the work programme should be documented in the report of the meeting using the template in Annex A. Note that this may not be necessary to document the continuation of existing work (e.g. an amendment or revision of an existing Recommendation).

A work item may be considered for discontinuation from the work programme if it has not given rise to any contribution in the time interval of the previous two study group meetings.

1.5 Liaison statements

1.5.1 The following information shall be included in liaison statements prepared at study group, working party or rapporteur group meetings. When necessary, between scheduled meetings, the liaison statement may be prepared by an appropriate correspondence process and approved by the study group chairman in consultation with the study group management team.

– List the appropriate Question numbers of the originating and destination study groups.

– Identify the study group, working party or rapporteur group meeting at which the liaison statement was prepared.

– Include a concise title appropriate to the subject matter. If this is in reply to a liaison statement, make this clear, e.g. "Reply to liaison statement from (*source and date*) concerning ...".

– Identify the study group(s) and working party(s) (*if known*) or other standards organizations to which it has been sent. *(A liaison statement can be sent to more than one organization.)*

– Indicate the level of approval, e.g. study group or working party, or state that the liaison statement has been agreed at a rapporteur group meeting.

– Indicate if the liaison statement is sent for action *or* comment *or* information. *(If sent to more than one organization, indicate this for each one.)*

– If action is requested, indicate the date by which a reply is required.

– Include the name and address of the contact person.

The text of the liaison statement should be concise and clear, using a minimum of jargon.

An example of the information required in a liaison statement is shown in Figure 1-1.

FIGURE 1-1

Example of the information required in a liaison statement

QUESTIONS:	45/15, 3/4, 8/ITU-R SG11		
SOURCE:	ITU-T SG15, Rapporteur group for Q45/15 (London, 2-6 October 1997)		
TITLE:	Object Identifier Registration – Reply to liaison statement from WP 5/4 (Geneva, 5-9 February 1997)		
	LIAISON STATEMENT		
FOR ACTION TO:	ITU-T SG4 – WP 5/		
FOR COMMENT TO:			
FOR INFORMATION TO:	ITU-R SG11, ISO/IEC JTC 1/SC 6		
APPROVAL:	Agreed to at the rapporteur group meeting		
DEADLINE:	Deadline for reply – 22 January 1998		
CONTACT:	John Jones, rapporteur for Q45/15	Tel:	+1 576 980 9987
	ABC Company	Fax:	+1 576 980 9956
	Anytown, CA USA	e-mail:	jj@abcco.com

1.5.2 Liaison statements should be forwarded to the appropriate destinations as soon after the meeting as possible. Copies of all liaison statements should also be sent to the chairmen of the study groups and working parties involved for information and to TSB for processing.

1.6 Correspondence activities

Correspondence activities may be authorized to be conducted via e-mail between meetings. Each correspondence activity should have specified terms of reference. A convener is appointed to moderate the e-mail discussion and prepare a report to a subsequent meeting. A correspondence activity should normally conclude no later than the contribution deadline of the meeting to which it is expected to report.

1.7 Preparation of reports of study groups, working parties or joint working parties, Recommendations and new Questions

1.7.1 A report on the work done during a meeting of a study group, working party or joint working party shall be prepared by TSB. Reports of meetings not attended by TSB should be prepared under the responsibility of the chairman of the meeting. This report should set out the results of the meeting and the agreements reached in a condensed form and should identify the points left to the next meeting for further study. The number of annexes to the report should be kept to a strict minimum by means of cross-references to contributions, reports, etc., and references to material in the documentation of a study group or working party. It would be desirable to have a concise summary of contributions (or equivalent) considered by the meeting.

The report should concisely present the following: organization of work; references to and possible summary of contributions and/or documents issued during a meeting; main results, including a status of new and/or revised Recommendations consented, determined or under development; directive for future work; planned meetings of working parties, sub-working parties and rapporteur groups; and condensed liaison statements endorsed at the study group or working party level. The table showing the status of Recommendations from the report is used to update the work programme database (see clause 1.4.7).

1.7.2 To assist TSB in this task, the study group or working party may arrange for delegates to draft some parts of the report. TSB should coordinate this drafting work. If necessary, the meeting will set up an editorial group to improve the texts of draft Recommendations in the official languages of the Union.

1.7.3 If possible, the report shall be submitted for approval before the end of the meeting; otherwise, it shall be submitted to the chairman of the meeting for approval.

1.7.4 When existing and already translated ITU-T texts have been used for some parts of the report, a copy of the report annotated with references to the original sources should also be sent to TSB. If the report contains ITU-T figures, the ITU-T reference number should not be deleted even if the figure has been modified.

1.7.5 Individual reports of meetings should be accessible online to appropriate users as soon as electronic versions of these documents are available to TSB.

1.7.6 ITU-T participating bodies are authorized to transmit study group or working party reports and documents to any experts they consider it expedient to consult, except where the study group or working party concerned has specifically decided that its report, or a document, is to be treated as confidential.

1.7.7 The report of a study group's first meeting in the study period shall include a list of all the rapporteurs appointed. This list shall be updated, as required, in subsequent reports.

1.8 Definitions

This Recommendation defines the following terms:

1.8.1 Terms defined elsewhere

1.8.1.1 Question [WTSA Resolution 1 (Rev. Dubai 2012)]: Description of an area of work to be studied, normally leading to the production of one or more new or revised Recommendations.

1.8.2 Terms defined in this Recommendation

1.8.2.1 amendment: An amendment to a Recommendation contains changes or additions to an already published ITU-T Recommendation.

NOTE – An amendment is published by ITU-T as a separate document that contains primarily changes or additions. If it forms an integral part of the Recommendation, approval of an amendment follows the same approval procedures as for Recommendations; otherwise, it is agreed by the study group.

1.8.2.2 annex: An annex to a Recommendation contains material (e.g. technical detail or explanation) which is necessary to its overall completeness and comprehensibility and is therefore considered an integral part of the Recommendation.

NOTE 1 – As an annex is an integral part of the Recommendation, approval of an annex follows the same approval procedures as Recommendations.

NOTE 2 – In common ITU-T | ISO/IEC texts, this element is called an "integral annex".

1.8.2.3 appendix: An appendix to a Recommendation contains material which is supplementary to and associated with the subject matter of the Recommendation but is not essential to its completeness or comprehensibility.

NOTE 1 – An appendix is not considered to be an integral part of the Recommendation and thus it does not require the same approval procedures as Recommendations; agreement by the study group is sufficient.

NOTE 2 – In common ITU-T | ISO/IEC texts, this element is called a "non-integral annex".

1.8.2.4 clause: The word clause shall be used to denote single-digit or multiple-digit numbered text passages.

1.8.2.5 corrigendum: A corrigendum to a Recommendation contains corrections to an already published ITU-T Recommendation. A corrigendum is published by ITU-T as a separate document that contains only corrections. TSB may correct obvious errors by issuing a corrigendum with the concurrence of the study group chairman; otherwise, approval of a corrigendum follows the same approval procedures as Recommendations.

NOTE – In common ITU-T | ISO/IEC texts, this element is called a "technical corrigendum".

1.8.2.6 implementers' guide: An implementers' guide is a document which records all identified defects (e.g. typographical errors, editorial errors, ambiguities, omissions or inconsistencies, and technical errors) associated with a Recommendation or a set of Recommendations and their status of correction, from their identification to final resolution.

NOTE – An implementers' guide is issued by ITU-T following agreement by a study group, or following agreement by a working party with concurrence of the study group chairman. Typically, defect corrections are first collected in an implementers' guide and, at a time deemed appropriate by the study group, they are used to produce a corrigendum or are included as revisions to a Recommendation.

1.8.2.7 normative reference: Another document that contains provisions which, through reference to it, constitute provisions to the referring document.

1.8.2.8 supplement: A document which contains material which is supplementary to and associated with the subject matter of one or more Recommendations but which is not essential to their completeness or understanding and implementation.

NOTE – Recommendation ITU-T A.13 deals with the subject of supplements to ITU-T Recommendations.

1.8.2.9 text: The "text" of Recommendations is understood in a broad sense. It may contain printed or coded text and/or data (such as test images, graphics, software, etc.).

1.8.2.10 work item: An assigned piece of work, which is identifiable with a Question and which has specific or general objectives, which will result in a product, usually a Recommendation, for publication by ITU-T.

1.8.2.11 work programme: A list of work items that are owned by a study group.

2 Study group management

2.1 Study group structure and distribution of work

2.1.1 Study group chairmen shall be responsible for the establishment of an appropriate structure for the distribution of work and the selection of an appropriate team of working party chairmen and shall take into account the advice provided by the members of the study group as well as the proven competence, both technical and managerial, of the candidates.

2.1.2 A study group may entrust a Question, a group of Questions or the maintenance of some existing Recommendations within its general area of responsibility to a working party.

2.1.3 Where the scope of the work is considerable, a study group may decide to further divide the tasks assigned to a working party to sub-working parties.

2.1.4 Working parties and sub-working parties should be set up only after thorough consideration of the Questions. Proliferation of working parties, sub-working parties or any other subgroups should be avoided.

2.1.5 A study group may exceptionally, by agreement with other relevant study group(s) and taking account of any advice from TSAG and the Director of TSB, entrust a joint working party with Questions or parts of Questions of common interest to the study groups concerned. This study group shall act as the lead study group for the joint working party and shall coordinate and have responsibility for the work concerned. The contributions used as a basis for discussion in the joint working party shall be sent exclusively to those registered in the joint working party. Only the reports shall be sent to all participating bodies of the study groups concerned.

2.1.6 As the promotion of study group activities is an essential element in any ITU-T marketing plan, each study group chairman, supported by other study group leaders and subject matter experts, is encouraged to establish, maintain and participate in a promotion plan, coordinated with TSB, whose emphasis is the dissemination of study group information to the telecommunication community. Such study group information dissemination should cover, but is not limited to, new work initiatives and significant accomplishments regarding technologies and technical solutions.

2.2 Joint coordination activities (JCAs)

2.2.1 A joint coordination activity (JCA) is a tool for management of the work programme of ITU-T when there is a need to address a broad subject covering the area of competence of more than one study group. A JCA may help to coordinate the planned work effort in terms of subject matter, time-frames for meetings, collocated meetings where necessary and publication goals including, where appropriate, release planning of the resulting Recommendations.

The establishment of a JCA aims mainly at improving coordination and planning. The work itself will continue to be conducted by the relevant study groups and the results are subject to the normal approval processes within each study group. A JCA may identify technical and strategic issues within the scope of its coordination role, but will not perform technical studies nor write Recommendations. A JCA may also address coordination of activities with recognized standards development organizations (SDOs) and forums, including periodic discussion of work plans and schedules of deliverables. The study groups take JCA suggestions into consideration as they carry out their work.

2.2.2 Any group (study group or TSAG) may propose that a JCA be established. The proposal to establish a JCA should first be discussed within the proposing group's management team, then among the relevant study group chairmen and the TSAG chairman. Discussions may be held with external SDOs and forum leaders.

If the study group proposing the establishment of the JCA has been designated as the lead study group by WTSA or TSAG according to Section 2 of WTSA Resolution 1, and if the subject is under their responsibility and mandate as described in WTSA Resolution 2, then a study group may establish a JCA on its own authority. If a study group meeting is pending within the next two months, then an electronic notification[1] proposing the JCA, including the terms of reference (including scope, objectives and anticipated lifetime) and the chairman, is published four weeks prior to the study group meeting, giving opportunity for the membership to give their position at the meeting. If this is done at least four weeks prior to the study group meeting, following the resolution of any comments, the JCA may be established by the study group by consensus at its meeting. If a study group meeting is not pending within the next two months, then an electronic notification as above is sent for the membership to give their position by electronic response. If the notification is sent less than four weeks before the study group meeting, no decision is taken at the study group meeting; the decision may be taken four weeks after the notification, excluding the meeting time. If necessary, the proposal is adjusted taking into consideration comments received and made available to the study group electronically for decision with a further four-week interval. If there are no substantive

[1] This electronic notification should be sent to the general e-mail reflector for the proposing study group and should also be a temporary document to the next meeting of the study group.

comments, the JCA is considered approved. TSAG will be informed for review, possible comment, and endorsement. TSAG may consider the terms of reference of the JCA in the context of the overall work programme of ITU-T and may provide comments to modify the terms of reference.

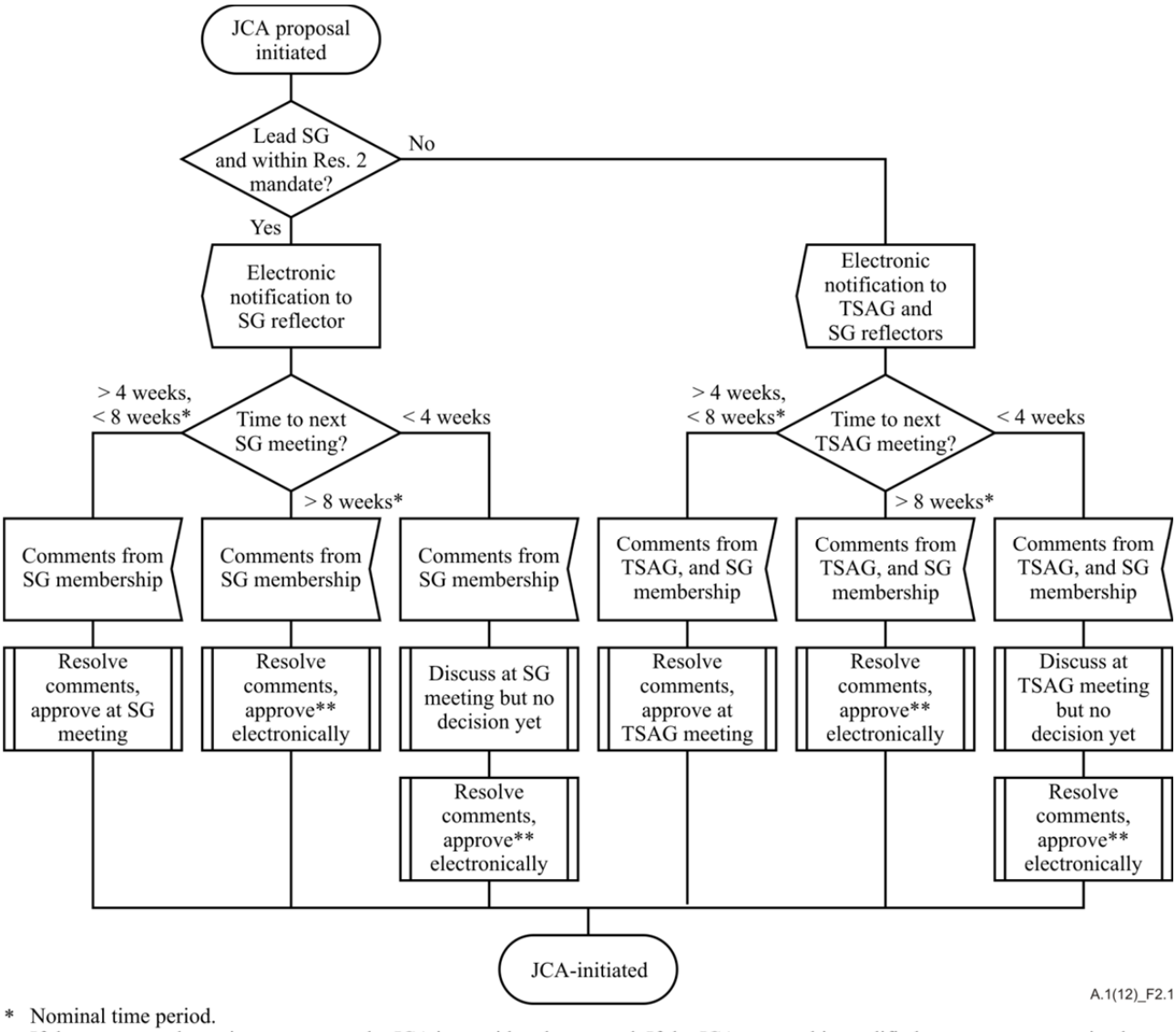
Where the lead study group has not yet been designated by WTSA or TSAG for the subject, or where the subject for the JCA is a broad subject potentially falling under the responsibility and mandate of a number of study groups as described in WTSA Resolution 2, then the proposal has to be made available to the membership for consideration. If a TSAG meeting is pending within the next two months, then an electronic notification[2] proposing the JCA, including the terms of reference (including scope, objectives and anticipated lifetime) and the chairman, is published four weeks prior to the TSAG meeting, giving opportunity for the membership to give their position at the meeting. If this is done at least four weeks prior to the TSAG meeting, following the resolution of any comments, the JCA may be established by TSAG by consensus at its meeting. If a TSAG meeting is not pending within the next two months, then an electronic notification as above is sent for the membership to give their position by electronic response. If the notification is sent less than four weeks before the TSAG meeting, no decision is taken at the TSAG meeting; the decision may be taken four weeks after the notification, excluding the meeting time. If necessary, the proposal is adjusted taking into consideration comments received and made available to the membership electronically for decision with a further four-week interval. If there are no substantive comments, the JCA is considered approved. The decision includes the designation of the group responsible (a study group or TSAG), the terms of reference (including scope, objectives and anticipated lifetime) and the chairman.

Figure 2-1 provides a schematic of the alternatives in proposing and approving the creation of a JCA.

[2] This electronic notification should be sent to the general e-mail reflector for the potentially involved study groups and TSAG and should also be a temporary document to the next meeting of TSAG.

FIGURE 2-1

Alternatives in proposing and approving the creation of a JCA



* Nominal time period.

** If there are no substantive comments, the JCA is considered approved. If the JCA proposal is modified per comments received, it is again circulated for a four-week review. If there are no substantive comments, the JCA is considered approved.

2.2.3 JCAs are open, but (to restrict their size) should primarily be limited to official representatives from the relevant study groups that are responsible for work covered by the scope of the JCA. A JCA may also include invited experts and invited representatives of other SDOs and forums, as appropriate. All participants should confine inputs to a JCA to the purpose of the JCA.

2.2.4 The establishment of a JCA is to be announced in a TSB circular, which should include the terms of reference of the JCA, the chairman of the JCA, and the study group responsible for the JCA.

2.2.5 JCAs should work primarily by correspondence and electronic meetings. Any physical meeting considered necessary should be convened by the chairman of the JCA. Physical meetings should be supported by conferencing capabilities where possible, and both physical and electronic meetings should be scheduled as far as practicable at times that will provide maximum opportunity for broad participation. It is anticipated that physical meetings will be in conjunction with the involved study group meetings (in which case it is reflected in the collective letter for that study group) as far as practicable, but if a separate meeting is to be held, it is to be announced at least four weeks in advance by an (electronic) collective invitation letter.

2.2.6 Inputs to the work of a JCA should be sent to the JCA chairman and to the concerned TSB counsellor, and the latter will make these available to the members of the JCA.

2.2.7 JCAs may submit proposals to the relevant study groups to achieve alignment in the development of related Recommendations and other deliverables by the respective study groups. A JCA may also issue liaison statements.

2.2.8 JCA input and output documents and reports are made available to the ITU-T membership. Reports are issued after each JCA meeting. TSAG may monitor JCA activities through these reports.

2.2.9 TSB will provide support for a JCA, within available resource limits.

2.2.10 A JCA may be terminated at any time if the involved study groups agree that the JCA is no longer required. A proposal to do so, including justification, may be submitted by any study group involved or by TSAG, and examined for decision by the study group responsible for the JCA, after consulting the involved study groups and TSAG (via electronic means, if a TSAG meeting is not pending in the near future). A JCA may continue across a WTSA but will automatically be reviewed at the first TSAG meeting following the WTSA. A specific decision must be taken on the continuation of the JCA, potentially with adjusted terms of reference.

2.2.11 A JCA may propose, in justified cases and on an exceptional basis, the establishment of a global standards initiative (GSI) in the area of work covered by the JCA, where it is considered necessary to provide a visible focus for the work. A GSI is not a working entity but is a name for the package of work being conducted through collocated meetings of the involved study groups and rapporteur groups under the umbrella of a coordinated work plan managed by the JCA. The proposal, which includes the terms of reference, a justification and a scheduled lifetime of the GSI, should be developed by the study group leading the JCA, in consultation with the chairmen of the concerned study groups, and submitted to TSAG for approval. A GSI automatically stops at the end of its scheduled lifetime unless there is a decision by TSAG to prolong it. A GSI may continue across a WTSA but will automatically be reviewed at the first TSAG meeting following the WTSA. A specific decision must be taken on the continuation of the GSI, potentially with adjusted terms of reference.

2.2.12 If a GSI is established in the area of work covered by a JCA, a technical and strategic review (TSR) process may be set up by the JCA, if deemed necessary, to operate at every GSI event. The TSR process addresses specific issues within the broader coordination provided by the JCA, and should ensure that the JCA is made aware of any issues requiring guidance or additional attention. If the JCA creates a TSR process, the JCA will choose a TSR coordinator to ensure that the TSR process proactively examines issues, and adequately addresses any concerns of the GSI event participants, for example, regarding work allocation.

2.3 The roles of rapporteurs

2.3.1 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 reside with the study group or working party.

2.3.2 Liaison between ITU-T study groups or with other organizations can be facilitated by the rapporteurs or by the appointment of liaison rapporteurs.

2.3.3 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.

2.3.3.1 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.

2.3.3.2 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 that needs to be done rather than to the interval between WTSAs. If the related Question is modified by WTSA, for continuity purposes, the rapporteur may, at the discretion of the new study group chairman, continue to progress the relevant work until the next meeting of the study group.

2.3.3.3 Where the work so requires, a rapporteur may propose the appointment of one or more associate rapporteurs, liaison rapporteurs or editors, 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. The editor assists the rapporteur in the preparation of the text of draft Recommendations or other publications.

2.3.3.4 Rapporteurs, and their associate and liaison rapporteurs as well as the editors, 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.

2.3.3.5 As a general principle, work by correspondence (including electronic messaging and telephone communications) is preferred and the number of meetings should be kept to a strict minimum, consistent with the scale and milestones agreed by the parent group. Where possible, meetings in related areas of study or within a work area covered by a JCA should be coordinated. In any case, this work should proceed in a continuous fashion between meetings of the parent group.

2.3.3.6 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-T, ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Development Sector (ITU-D) study groups, other rapporteurs, other international organizations and other standards organizations (where appropriate) and 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 review and update the work programme, which should be approved and reviewed periodically by the parent group (see clause 1.4.7);

– 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 (e.g. of a rapporteur's meeting or editor's work) to each of the parent group's meetings (see suggested format in Appendix II), in the form of a temporary document to be submitted as soon as possible and not later than the first day of the meeting; when such a temporary document contains draft new or revised Recommendations, then it is encouraged, where possible, that it be submitted at least six weeks prior to the parent group's meeting;

– to give the parent working party or study group and TSB adequate advance notice of the intention to hold any meetings of experts (see clause 2.3.3.10 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 TSB at each working party meeting;

– to delegate the relevant functions from the list above to associate rapporteurs and/or liaison rapporteurs, as necessary.

2.3.3.7 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.

2.3.3.8 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 Recommendation ITU-T A.11 on the publication of ITU-T Recommendations.)

2.3.3.9 Rapporteurs should normally base any draft new or substantially revised Recommendations on written contribution(s) from ITU-T members.

2.3.3.10 In conjunction with their work planning, rapporteurs must give advance notice of any meetings they arrange, not only to the collaborators on their Question or project, but also to the study group (see clause 2.3.3.11) and to TSB. TSB is not required to circulate convening collective letters for meetings below working party level. TSB will post a convening letter for rapporteur meetings (using a TSB-defined template), normally at least two months prior to the meeting, on the study group webpage, as provided by the study group.

2.3.3.11 The intention to hold rapporteur meetings, along with details of the issues to be studied, 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 study group webpage, for example. Not only should confirmation of the date and place of any meeting normally be provided to the collaborators (and any other ITU-T members who have indicated an interest in attending or submitting a contribution to the meeting), to the relevant working party chairman and to TSB at least two months prior to the meeting, but also visa support should be provided by the meeting host.

2.3.3.12 Rapporteurs should prepare a meeting report for each rapporteur meeting held and submit it as a temporary document to the next study group or working party meeting. See clause 3.3 for submission and processing of TDs.

This report should include the date, venue and chairman, an attendance list with affiliations, the agenda of the meeting, a summary of technical inputs, a summary of results and the liaison statements sent to other organizations.

Rapporteurs will ask, during each meeting, whether anyone has knowledge of patents or software copyrights, the use of which may be required to implement the Recommendation being considered. The fact that the question was asked shall be recorded in the meeting report, along with any affirmative responses.

2.3.3.13 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.

2.3.3.14 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.

2.3.3.15 When meetings are arranged to be held outside ITU premises, participants should not be charged for meeting facilities, unless agreed in advance by the study group. Meeting charges should be an exceptional case and only done if, for example, the study group is of the opinion that a meeting charge is necessary for the work to proceed properly. However, no participant should be excluded from participation if he or she is unwilling to pay the charge. Additional services offered by the host shall be voluntary, and there shall be no obligation on any of the participants resulting from these additional services.

3 Submission and processing of contributions

3.1 Submission of contributions

3.1.1 Member States and other duly authorized entities registered with a study group or its relevant group should submit their contributions to current studies via electronic means, in accordance with guidance from the Director of TSB (see Recommendation ITU-T A.2, clause 2).

3.1.2 Chairmen and vice-chairmen of study groups and working parties may at any time submit inputs as TDs, including, in particular, proposals likely to accelerate the debates; see clause 3.3 for submission and processing of TDs.

3.1.3 These contributions shall contain comments or results of experiments and proposals designed to further the studies to which they relate.

3.1.4 Contributors are reminded, when submitting contributions, that early disclosure of patent information is desired, as contained in the statement on Common Patent Policy for ITU-T/ITU-R/ISO/IEC (available at the ITU-T website). Patent declarations are to be made using the "Patent Statement and Licensing Declaration Form for ITU-T/ITU-R Recommendation │ ISO/IEC Deliverable" available at the ITU-T website. See also clause 3.1.5 below.

3.1.5 General Patent Statement and Licensing Declaration: Any ITU Member State or ITU-T Sector Member or Associate may submit a general patent statement and licensing declaration using the form available at the ITU-T website. The purpose of this form is to give patent holders the voluntary option of making a general licensing declaration relative to patented material contained in any of their contributions. Specifically, the submitter of the licensing declaration declares its willingness to license, in case part(s) or all of any proposals contained in contributions submitted by the organization are included in ITU-T Recommendation(s) and the included part(s) contain items that have been patented or for which patent applications have been filed and whose use would be required to implement ITU-T Recommendation(s).

The general patent statement and licensing declaration is not a replacement for the individual (per Recommendation) patent statement and licensing declaration but is expected to improve responsiveness and early disclosure of the patent holder's compliance with the Common Patent Policy for ITU-T/ ITU-R/ISO/IEC.

3.1.6 Material such as text, diagrams, etc., submitted as a contribution to the work of ITU-T is presumed by ITU to have no restrictions in order to permit the normal distribution of this material for discussions within the appropriate groups and possible use, in whole or in part, in any resulting ITU-T Recommendations that are published. By submitting a contribution to ITU-T, authors acknowledge this condition of submission. In addition, authors may state any specific conditions on other uses of their contribution.

3.1.7 A contributor submitting software for incorporation in the draft Recommendation is required to submit a software copyright statement and licensing declaration form available at the ITU-T website. The form must be provided to TSB at the same time that the contributor submits the software.

3.1.8 Contributions that are to be considered at a study group or working party meeting shall reach TSB at least twelve calendar days before the meeting.

3.2 Processing of contributions

3.2.1 Contributions received at least two months before a meeting may be translated (see clause 3.2.2 below) and will be posted in the original and, if applicable, in translated languages, on the web as soon as practicable after they are received. They will be printed and distributed at the beginning of the meeting only to the participants present who request paper copies.

3.2.2 If a chairman, in agreement with the participants of his study group (or working party), states that his study group (or working party) is willing to use documents in the original language, no translations will be made.

3.2.3 Contributions received by the Director less than two months but not less than twelve calendar days before the date set for the opening of a meeting cannot be translated.

3.2.4 Contributions should be posted on the web no more than three working days after they are received by the secretariat.

3.2.5 Contributions received by the Director less than twelve calendar days before the meeting will not appear on the agenda of the meeting, will not be distributed and will be held for the next meeting. Contributions judged to be of extreme importance may be admitted by the Director at shorter notice. The final decision as to their consideration by the meeting shall be taken by the study group (or working party).

3.2.6 The Director should insist that contributors follow the rules established for the presentation and form of documents set out in Recommendation ITU-T A.2, and the timing given in clause 3.1.7. A reminder should be sent out by the Director whenever appropriate.

3.2.7 The Director, with the agreement of the study group chairman, may return to the contributor any document that does not comply with the general directives set out in Recommendation ITU-T A.2, so that it may be brought into line with those directives.

3.2.8 Contributions shall not be included in reports as annexes, but should be referenced as needed.

3.2.9 Contributions should, as far as possible, be submitted to a single study group. If, however, a participating body submits a contribution that it believes is of interest to several study groups, it should identify the study group primarily concerned; a single sheet giving the title of the contribution, its source and a summary of its contents will be issued to the other study groups. This single sheet will be numbered in the series of contributions of each study group to which it is issued.

3.3 TDs

3.3.1 TDs should be provided to TSB in electronic format. TSB shall post electronically those TDs submitted as electronic files as soon as they become available; those submitted as paper copies will be posted as soon as practicable.

3.3.2 Extracts from reports of other study group meetings or from reports of chairmen, rapporteurs or drafting groups shall be published as TDs. They will be printed and distributed during the meeting only to the participants present who request paper copies.

3.3.3 TDs input before the start of the study group or working party meeting, including documents from the ITU secretariat, should be posted on the relevant page of the website not later than three working days from the date on which they are received by the secretariat, to ensure their availability not later than seven calendar days before the start of the meeting. This deadline shall not extend to administrative documents or reports on events that have taken place less than 21 calendar days before the start of the meeting, nor to proposals from Chairmen and convenors of ad hoc groups, compilations of proposals prepared by chairmen or the secretariat, or documents specifically requested by the meeting. Reports on events that have taken place less than 21 calendar days before the start of the meeting should normally be posted on the relevant page of the website not later than two calendar days before the beginning of the discussion of the item in question at the meeting, unless otherwise agreed by the meeting.

3.3.4 TDs containing extracts from reports of other study group or working party meetings shall not be reissued by TSB as contributions, since they have usually served their purpose at the meeting and some relevant parts may already have been included in the report of the meeting.

3.3.5 TDs can be produced during the meeting.

3.3.6 TDs will be printed and distributed at the beginning of the meeting (and during the meeting) only to the participants present who request paper copies.

3.4 Electronic access

3.4.1 TSB will post electronically all documents (e.g. contributions, TDs (including liaison statements)) as soon as electronic versions of these documents are available. Appropriate search facilities for posted documents should be provided.

APPENDIX I

Rapporteur progress report format

(This appendix does not form an integral part of this Recommendation)

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;

f) reference to contributions considered part of assigned study and summary of contributions considered at rapporteur group meetings (see Note);

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) response to question on knowledge of patents;

j) list of attendees at all meetings held since last progress report.

A meeting report shall clearly indicate in its title the Question number, meeting venue and meeting date. In general, the title shall be of the form "Rapporteur Report Qx/x".

Any draft Recommendations produced shall be presented as separate TDs (one document per Recommendation). The title of the Temporary Document shall be of the form "Draft new Recommendation ITU-T X.x: abc", where "abc" stands for the title of the draft Recommendation, or "Draft revised Recommendation ITU-T X.x: abc", or "Draft Amendment 1 to Recommendation ITU-T X.x: abc", etc.

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.

NOTE – The progress report may make reference to the meeting reports (see clause 2.3.3.12) in order to avoid duplication of information.

ANNEX A

Template to describe a proposed new Recommendation in the work programme

(This annex forms an integral part of this Recommendation)

Question:	/	**Proposed new ITU-T Recommendation**	<Meeting date>	
Reference and title:	Recommendation ITU-T <X.xxx> "Title"			
Base text:	<C nnn> or <TD nnnn>		**Timing:**	<Month-Year>
Editor(s):	<Name, membership, e-mail address>		**Approval process:**	<AAP or TAP>
Scope (defines the intent or object of the Recommendation and the aspects covered, thereby indicating the limits of its applicability):				
Summary (provides a brief overview of the purpose and contents of the Recommendation, thus permitting readers to judge its usefulness for their work):				
Relations to ITU-T Recommendations or to other standards (approved or under development):				
Liaisons with other study groups or with other standards bodies:				
Supporting members that are committing to contributing actively to the work item: <Member States, Sector Members, Associates, Academia>				

Recommendation ITU-T A.2

Presentation of contributions to the ITU Telecommunication Standardization Sector

(1984; 1988; 1993; 1996; 2000; 2004; 2008; 2012)

1 With regard to the presentation of contributions to the study of Questions assigned to the ITU Telecommunication Standardization Sector (ITU-T), the following general directives should be applied:

a) Contributions should be concisely drafted, avoiding unnecessary details, tables or statistics that make no direct contribution to the study of a Question. They should be clearly written with a view to being universally understood, i.e. they should be as codified as possible, use international terminology and avoid the technical jargon peculiar to the author's country. Contributors should use the units, letter symbols and graphical symbols of the international system of units (SI) as supported by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). In addition, Coordinated Universal Time (UTC) should be used to designate time.

b) A contribution should not, as a rule, exceed about 2500 words (requiring no more than five printed pages to be distributed), nor should it include more than three pages of figures (making eight pages in all). It should be accompanied by an abstract that is no more than 150-200 words, and which summarizes the aim of the contribution and its technical content. Whenever possible, a section with the heading Rationale (or Discussion) should be used for the main text, which sets forth the essential information required for justifying the proposals or conclusions of the contribution. The contribution should end with a Proposal or, if not feasible, a Conclusion (both if required). For self-explanatory proposals, the rationale section may be omitted. These directives do not apply to draft Recommendations.

c) Documents of purely theoretical interest that are not directly related to the Questions under study should not be submitted.

d) Articles that have been or are to be published in the technical press should not be submitted to ITU-T, unless they relate directly to Questions under study.

e) Passages of an unduly commercial nature included in a contribution may be deleted by the Director of the Telecommunication Standardization Bureau (TSB) in agreement with the chairman; the author of the contribution shall be advised of any such deletions.

Detailed guidelines recommended for the preparation of contributions are provided in Appendix I. Details on the presentation of ITU-T texts can be found in the "Author's Guide for drafting ITU-T Recommendations" (referred to as "Guide" in the following).

2 With regard to the submission of contributions and TDs (including liaison statements), all documents to ITU-T should, as far as possible, be sent using electronic means; if no such facilities are available to the contributor, submission of paper only copies is acceptable.

Electronic submission facilities include e-mail and the ITU web-based interface. Detailed information and instructions for these methods are maintained by TSB on the ITU-T website and disseminated periodically via TSB circular.

If contributions are submitted as paper documents, they shall be addressed to TSB and copied to the study group chairmen and vice-chairmen, working party chairmen and concerned rapporteur(s).

3 Contributions should be printable in A4 format, as far as possible. The first page must have the standard layout of ITU-T contributions. Drafts must be in one or more of the official and working languages of the Union. When existing ITU-T texts already translated have been used in some parts of a contribution, a copy of the contribution with a precise reference to the original sources also should be sent to TSB. If ITU-T figures are used in the contributions, the ITU-T number must not be deleted, but if the figure has been modified, the abbreviation "mod" should be added after the number. If not required by further development of the text, use of colours in the text of contributions or other submitted documents should be avoided.

4 If a contribution contains electronic material (software, test data, etc., referred to herein as "software"), it should be attached to the text sent to TSB.

Contributors are encouraged to submit formal language descriptions as electronic attachments.

APPENDIX I

Detailed guidelines for the preparation of contributions relative to the study of ITU-T Questions

(This appendix does not form an integral part of this Recommendation.)

NOTE – These guidelines will be updated by TSB as necessary. The updated version will be maintained on the ITU-T website and issued in a TSB circular.

The guidelines in this appendix supplement the general directives set out in Recommendation ITU-T A.2. For ease of reference, they are organized under relevant headings in two categories: one deals with the contents of the contribution and the other with the mechanics of its presentation.

I.1 Contents of contribution

A contribution should be clear, concise and comprehensive in itself. It should start with the Heading and the Abstract, which are independent sections. The main text of the contribution should contain two sections: Rationale (or Discussion) and Proposal (or Conclusion). Supplementary sections such as annexes, if necessary, should follow the main text. The guidelines for the structure of the main text do not apply to draft Recommendations or to submission by rapporteurs.

I.1.1 *Heading* – The heading of a contribution submitted to TSB should provide:

– study group Question number(s) that the contribution is addressing;

– place and date of the meeting to which the contribution is directed;

– study group and working party to which the contribution should be submitted;

– source of the contribution: originating country and/or organization;

– title of the contribution;

– contact information for the contribution originator and/or representative: name, organization, country, telephone, fax and e-mail address.

A template that defines the recommended heading format is available (under "Guides, Tools, and Templates") on the ITU-T study group and TSAG websites.

I.1.2 *Abstract* – The abstract should outline clearly and concisely the aim (for example, proposal for a new Recommendation) and the content (proposals and/or conclusions of the contribution). In addition, it should enable prospective readers to determine quickly whether the contribution contains information in their area of interest and, often, which working party(ies) should review the contribution. This is a very important part of the document and would normally be prepared after the other sections are written. An abstract should not exceed 150-200 words. It should be understandable by other study groups and not just the intended readers of the contribution.

I.1.3 *Rationale (Discussion)* – This section should provide discussion, reasons and justification for the proposals or conclusions. It develops the theme, describing the methods used and the observations or findings, and comments on their significance.

I.1.4 *Proposal (Conclusion)* – The main text should end with a conclusion that, whenever possible, should be in the form of a concrete proposal indicating the intended disposition of the contribution. It would be useful to make the following distinction between Proposal and Conclusion, so that a standard approach to their application may be adopted. The heading Proposal should be used when the section offers suggestions for acceptance (such as solutions, plans and changes the contributor expects to be implemented) and when decisions or actions are requested. The heading Conclusion should be used when it is merely informational, such as summarizing observations and no decision about a course of action is expected. If both appear in a contribution, the proposals should follow the conclusions.

I.1.5 *Supplementary Sections* – Supporting or more detailed information that might interrupt the flow of ideas in the main text should be placed in the sections containing annexes, appendices, references and attachments. A solid line can be used to separate such sections from the main text. "The Guide" describes the distinction between the uses of Annex and Appendix.

I.2 Mechanics and presentation

I.2.1 *Clause numbering* – The contribution should be structured logically and, whenever clarity and flow demand, hierarchically, with discrete clauses and subclauses for presenting different levels of detail. Different clauses and subclauses in the main text should be designated with decimal numbers, adhering as much as possible to the hierarchical numbering system recommended for ITU-T texts (see "Guide"); for example, 1.1, 1.2.3. Examples for numbering the supplementary sections are A.1.1 of Annex A and VI.3.4 of Appendix VI.

I.2.2 *Page numbering* – The title page should be left unnumbered. All the following pages should be numbered consecutively from page 2, including tables, annexes, appendices or attachments. Page numbers should normally be centred at the top of the page. Each page should include the document number (if available) immediately below the page number. It is useful to show the total number of pages with the page number, e.g. 2 of 10.

I.2.3 *Figures and diagrams* – Figures and diagrams must be clear and legible when printed in A4 format.

I.2.4 *Formulae* – Mathematical formulae should only be presented for explaining texts. Details of how they are derived should be avoided.

I.2.5 *Quotations* – Simple reference to the document number or paragraph number of an existing text or key phrase should be used instead of lengthy quotes. Material available elsewhere in ITU-T should not be reproduced or quoted at length. Excerpts or brief summaries may be included in the contribution when it is known that the members of the ITU-T study group do not have ready access to such material.

I.2.6 *References* – Reference to other ITU-T contributions or Recommendations should be made by using the official document number, e.g. COM 14-10. If the referenced contribution belongs to a previous study period, this fact should be noted as well.

References to standards other than ITU or ISO/IEC publications or standards should conform to the requirements of Recommendation ITU-T A.5. Other publications not covered by Recommendation ITU-T A.5 may be referenced in a Bibliography.

(See "Guide" for more information on references and bibliographies.)

I.2.7 *Revision to existing text* – If a contribution proposes modifications to an existing text, e.g. draft Recommendation, the portions of the text to be modified should be clearly shown with revision marks. Adequate indications shall also be given to identify any changes proposed with regard to the previous version of the same text.

Such change indications could be made, for example, by strikethrough, underlining and by vertical revision bars (|) appearing at the margin of the page.

Recommendation ITU-T A.4

Communication process between the ITU Telecommunication Standardization Sector and forums and consortia

(1996; 2000; 2002; 2006; 2007; 2012)

1 Introduction

The purposes of the International Telecommunication Union are contained in Article 1 of the Constitution. These include the aim "to promote, at the international level, the adoption of a broader approach to the issues of telecommunications in the global information economy and society, by cooperating with other world and regional intergovernmental organizations, and those non-governmental organizations concerned with telecommunications".

Also noted are the challenges faced by the Union in achieving its purposes in the changing telecommunication environment, both in the period covered by the Strategic Plan for the Union for 1995-1999 and in the following period, as stated in Resolution 1 (Plenipotentiary Conference, Kyoto, 1994). The Annex to Resolution 1 elaborates the Strategic Plan. For the Standardization Sector, its strategy includes recognition of the growing influence of industry forums, and a specific goal to develop appropriate agreements and cooperative relationships with other organizations, including forums. Among the priorities identified for the Sector is the objective "to continue to cooperate with other global and regional standardization organizations and industry forums to harmonize the development and implementation of global telecommunication standards".

In order to facilitate the development of cooperative relationships with forums, and to encourage information exchange, it is deemed necessary to provide guidance on the means of communication. In particular, it is of benefit to establish procedures for use when structuring the communications process between ITU-T and forums and consortia.

WTSA decides that the following procedures be applied.

2 Procedures

Study group chairmen are encouraged to engage in two-way communication, where appropriate, with representatives of forums/consortia, and to invite presentation to their study groups of the work of the forums/consortia, as identified by the study group.

In addition, procedures have been introduced for a formal communication process between ITU-T (or one or more of the study groups) and forums/consortia that qualify according to the criteria in Annex A. The communication process permits document exchange between ITU-T and qualified forums/consortia. Establishing a communication process provides a framework for ongoing communications, in order to:

– prevent inadvertent duplication of effort, while allowing each organization to pursue its own mandate;

– provide authoritative information regarding one organization's dependencies on the other's work;

– exchange information on topics of mutual interest.

2.1 Establishment of the communication process

Establishment of a communication process with a forum/consortium should be considered on a case-by-case basis, and should be evaluated with due care and diligence using the set of criteria in Annex A. Normally, the process is established at the study group level. In the case of groups associated with one or more study groups, the evaluation and decision to proceed should be carried out by the lead study group. To avoid multiple requests to a forum/consortium for information pertaining to the criteria in Annex A, and to facilitate evaluation by study groups, the Director of TSB should make the request to the forum/consortium and subsequently make a preliminary analysis of the response. A schematic diagram of the communication process is provided in Appendix I.

2.1.1 Communication process initiated by an ITU-T study group

If a study group considers that it is beneficial to establish a communication process with a forum/consortium, the study group should first check the ITU-T A.4-qualified organizations list (see 2.3) and obtain the Director's analysis. The study group shall review the analysis and make a decision whether or not to communicate with the forum/consortium. If the forum/consortium in question is not on the list, the study group chairman asks the Director to request the forum/consortium to provide the information and fill in the questionnaire relating to the qualifying criteria set forth in Annex A. The Director performs a preliminary analysis of the forum/consortium and transmits it to the affected study group(s), which shall review the analysis and make a decision whether or not to communicate. Any areas of concern should be immediately shared with other interested study group chairmen and the Director. If the study group decides to approve, the study group chairman shall establish the communication process. The study group chairman should facilitate the process as described in 2.2.

2.1.2 Communication process initiated by a forum/consortium

If a forum/consortium wishes to establish a communication process with a study group, that study group should first check the ITU-T A.4-qualified organizations list (see 2.3) and obtain the Director's analysis. The study group shall review the analysis and make a decision whether or not to communicate with the forum/consortium. If the forum/consortium is not on the list, the procedure described for this case in 2.1.1 is applied. Any areas of concern should immediately be shared with other interested study group chairmen and the Director. If the study group decides to approve, the communication process can be established. The study group chairman should facilitate the process as described in 2.2.

If a forum/consortium contacts the Director of TSB to establish a communication process with ITU-T, the Director should first determine whether it is appropriate for:

a) ITU-T (for related policy issues); or

b) one or more study groups (for topics relating to their work).

In case *a)*, the Director evaluates the forum/consortium according to the criteria in Annex A. If the Director decides to approve, he shall establish the communication process and inform TSAG and all study groups.

In case *b)*, the Director performs a preliminary analysis and transmits it to the affected study group(s), which shall proceed as outlined in the first paragraph of 2.1.2. If multiple study groups are involved, the decision of each study group should be communicated to the others, to TSAG and to the Director of TSB.

2.2 Communication process once established

2.2.1 Documents sent to ITU-T A.4-qualified forums/consortia

A proposal to send a liaison statement to an ITU-T A.4-qualified forum/consortium can arise from work by a rapporteur group, working party or study group. The decision to send such information is made by the study group chairman in consultation with the relevant working party chairman, and, if arising from a study group meeting, with the agreement of the study group. The documentation is sent to the forum/consortium by TSB on behalf of the study group.

When necessary, between scheduled meetings, the liaison statement may be prepared by an appropriate correspondence process and approved by the study group chairman in consultation with the study group management.

2.2.2 Documents received from ITU-T A.4-qualified forums/consortia

Documents submitted to ITU-T by qualified forums/consortia should conform to criterion 8 in Annex A. These documents are not issued as Contributions. As soon as they arrive they are made available, with the agreement of the study group chairman for advance consideration by the relevant group. Moreover, they are issued as a document to the relevant group with a reference to the originating forum/consortium, i.e. as a Temporary Document at a study group or working party meeting, or as a document at a rapporteur meeting. In the latter case, the receipt and disposition of the document received should be recorded in the report of the rapporteur meeting.

2.3 ITU-T A.4-qualified organizations list

The Director of TSB is requested to maintain an up-to-date ITU-T A.4-qualified list of the forums/consortia that are under evaluation and/or have been approved for the communication process, including identification of the study groups concerned, and make it available online.

2.4 Copyright arrangements

The subject of modifications to texts and arrangements for royalty-free copyright licenses, including the right to sub-license, for texts accepted by either ITU-T or by forums/consortia and their publishers and others, is a matter to be agreed upon between TSB and the particular forums/consortia. However, the originating organization retains the copyright for its texts.

ANNEX A

Qualifying criteria for forums/consortia communication process

(This annex forms an integral part of this Recommendation)

NOTE – An administration may require that "communications" to ITU-T or its study groups, from a forum/consortium within that administration's jurisdiction, follow its established national procedures.

Forum/consortium attributes	Desired characteristics
1) Objectives/relationship of work to ITU-T work	Objectives should refer to use of International Standards/Recommendations, or to the provision of input into international standards organizations, especially ITU-T.
2) Organization: – legal status; – geographic scope; – secretariat; – nominated representative.	 – should indicate in which country/countries it has legal status; – should be global (i.e. should involve more than one region of the world); – permanent secretariat should exist; – should be willing to nominate a representative.
3) Membership (openness)	– forums/consortia membership criteria should not preclude any party with material interest, especially ITU Member States and Sector Members; – membership should comprise a significant representation of telecommunication interests.
4) Technical subject areas	Should be relevant to a particular study group(s) or ITU-T as a whole.
5) IPR Policy and Guidelines on: *a)* patent; *b)* software copyright (if applicable); *c)* marks (if applicable); and *d)* copyright.	 *a)* should be consistent with "Common Patent Policy for ITU-T/ITU-R/ISO/IEC" and "Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC"*; *b)* should be consistent with "ITU-T Software Copyright Guidelines"*; *c)* should be consistent with "ITU-T Guidelines related to the inclusion of Marks in ITU-T Recommendations"; *d)* ITU and ITU Member States and Sector Members should have the right to copy for standardization-related purposes (see also Rec. ITU-T A.1 with regard to copying and distribution).
6) Working methods/processes	– should be well-documented; – should be open and fair; – should support competition; – should explicitly consider anti-trust issues.

Forum/consortium attributes	Desired characteristics
7) Outputs	– outputs available to ITU-T should be identified; – process for ITU-T to obtain outputs should be identified.
8) Documents submitted to ITU-T	– should contain no proprietary information (no distribution restriction); – should indicate source within the forum/consortium (e.g. committee, subcommittee, etc.); – should indicate degree of stability of the document (e.g. preliminary, mature, stable, proposed date of adoption, etc.); – should indicate degree of approval of document (i.e. per cent of total forum membership involved and per cent of total forum membership that approved the document).

*) particularly, licences must be offered on a non-discriminatory basis on reasonable terms and conditions (whether free of charge or with monetary compensation) to both members and non-members.

APPENDIX I

Establishment of a process for cooperation and exchange of information under Rec. ITU-T A.4

(This appendix does not form an integral part of this Recommendation)

	1 **Initiation** (includes questionnaire in Annex A)	2 **Evaluation** according to the criteria	3 **Decision**	4 **Process once established** = implementation
2.1.1	Initiation of the request by an SG	The SG checks the ITU-T A.4-qualified list and reviews the analysis; if not on the list, see 2.1.2 *b)*	The SG decides to communicate	Communication process put into practice by the SG
2.1.2	Initiation of the request by a forum to an SG	The SG checks the ITU-T A.4-qualified list and reviews the analysis; if not in the list, see 2.1.2 *b)*	The SG makes a decision to approve communication	Communication process put into practice by the SG
2.1.2 *a)*	Initiation of the request by a forum to the Director for related policy issues	Evaluation by the Director	The Director decides to approve and informs TSAG + SGs	Communication process put into practice by the Director
2.1.2 *b)*	Initiation of the request by a forum to the Director for SG issues	The Director performs a preliminary analysis, the SG reviews the analysis	The SG decides to communicate, the SG informs other SGs, TSAG and the Director	Communication process put into practice by the SG
		Director adds forum under evaluation to the list	Director indicates on the list that forum is ITU-T A.4-qualified	

Recommendation ITU-T A.5

Generic procedures for including references to documents of other organizations in ITU-T Recommendations

(1998; 2000; 2001; 2012)

1 Scope

This Recommendation provides generic procedures for referencing the documents of other organizations in ITU-T Recommendations. This clause outlines the Scope, clauses 2 and 3 describe the procedures in detail. Appendix I provides the format for documenting a study group or working party decision with respect to making the reference. Specific information regarding organizations can be found on the ITU-T website.

NOTE – These generic procedures do not apply to references to standards produced by ISO and IEC. The long-standing ability to make such references continues unchanged.

2 Generic procedures for including references to documents of other organizations in ITU-T Recommendations

2.1 A member of an ITU-T study group identifies the need to make a specific reference (either normative or non-normative) to a document from another organization (referred to as the "referenced organization") within a specific draft Recommendation. It is preferred that, rather than making reference to an entire document from an outside organization, reference be made to only the specific section(s) concerned.

Two types of reference are considered in this Recommendation:

i) **Normative reference** – The whole or parts of a document to which it is necessary to conform in order to claim compliance to the Recommendation containing the reference.

ii) **Non-normative reference** – The whole or parts of a document where the referenced document has been used as supplementary information in the preparation of the Recommendation or to assist the understanding or use of the Recommendation and to which conformance is not necessary.

NOTE – The term "document" refers to output (such as Standards, Recommendations, Specifications, Implementation Agreements, etc.) of other organizations (such as forums/consortia, standards development organizations, etc.).

The requirements of 2.2 and 2.3 do not apply for non-normative references, since such referenced documents are not considered to be an integral part of an ITU-T Recommendation. They are documents that add to the reader's understanding but are not essential to the implementation of, or compliance with, the Recommendation.

2.2 For normative references, the member submits a contribution to the study group or working party providing information, as outlined in 2.2.1 to 2.2.10.

The study group or working party evaluates this information and decides whether to make the reference. The preferred format for documenting the study group or working party decision is given in Appendix I.

Specific details for referencing documents of the considered organization are provided on the Databases page of the ITU-T website.

2.2.1 A clear description of the document considered for reference (type of document, title, number, version, date, etc.).

2.2.2 Status of approval. Referencing a document that has not yet been approved by the referenced organization can lead to confusion; thus, normative referencing is usually limited to approved documents. If absolutely necessary, such a reference can be made where cooperative work requiring cross-references is being approved by the ITU-T and another organization in approximately the same time frame.

2.2.3 Justification for the specific reference, including why it is inappropriate to incorporate the full text in the Recommendation.

2.2.4 Current information, if any, about IPR issues (patents, copyrights, trademarks).

2.2.5 Other information that might be useful in describing the "Quality" of the document (e.g., length of time it has existed, whether products have been implemented using it, whether conformance requirements are clear, whether the specification is readily and widely available).

2.2.6 The degree of stability or maturity of the document.

2.2.7 Relationship with other existing or emerging documents.

2.2.8 When a document is to be referenced in an ITU-T Recommendation, all explicit references within the referenced document should also be listed.

2.2.9 Qualification of referenced organization (per clause 3). This need only be done the first time a document from the referenced organization is being considered for referencing and only if such qualification information has not been documented already.

2.2.10 A full copy of the existing document. No reformatting is necessary. The objective is to have referenced documents available via the web at no cost, so that the study group or working party may proceed with its evaluation. Accordingly, if a document to be referenced is available in this manner, it is sufficient for the contributing member to provide its exact location on the web. On the other hand, if the document is not available in this manner, a full copy must be provided (in electronic format if permissible by the referenced organization, otherwise in paper format).

2.3 For normative references only, the study group or working party evaluates the above information and comes to its conclusions based on the usual consensus process. The decision of the study group or working party shall be documented using the format in Appendix I. This requirement must be completed, at the latest, at the time the Recommendation is decided under TAP or consented under AAP.

The study group or working party report may simply note that the procedures of Recommendation ITU-T A.5 have been satisfied and provide a pointer to the document where the full details reside.

2.4 If the study group or working party decides to make the reference, it should be introduced with the standard text provided in clause 2 of the "Author's guide for drafting ITU-T Recommendations". Additionally, a note shall be added stating: "NOTE – The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation."

NOTE – In the case of texts produced jointly by ITU-T and ISO/IEC JTC 1, it is recognized that Recommendation ITU-T A.23 applies (see clause 6.6 of Appendix II within Annex A of ITU-T A.23 (2010).

2.5 If instead of referencing, the study group or working party decides to incorporate the text of another organization into the text of a Recommendation, then permission of that organization must be obtained. At the earliest possible moment, upon the request of the study group or working party, TSB should request from the organization a written statement that it agrees to the incorporation of the specific text in ITU-T Recommendations. An applicable prior written statement may be used instead. Should the organization decline to provide such statement or fail to so, the incorporation shall not be made. In this case, the decision to incorporate the reference instead of the text must be made by consensus.

3 Qualification of referenced organizations

To ensure the continued quality of the ITU-T Recommendations, not only is it necessary to evaluate the document being proposed for reference, it is also necessary to consider the referenced organization according to the criteria set out in 3.1, 3.2 and 3.3:

3.1 The criteria used for qualifying organizations, as documented in items 1 to 6 of Annex A of Recommendation ITU-T A.4 or items 1 to 6 of Annex A of Recommendation ITU-T A.6, should be used. If the referenced organization has already been qualified according to ITU-T A.4 or ITU-T A.6, the evaluation need not be repeated, and only a note of the result is required.

3.2 In addition, the referenced organization should have a process by which its output documents are published and regularly maintained (i.e. reaffirmed, revised, withdrawn, etc.).

3.3 The referenced organization should also have a document change control process, including a clear, unambiguous document numbering scheme. In particular, a feature to look for is that updated versions of a given document be distinguishable from the earlier versions.

APPENDIX I

Format for documenting a study group or working party decision

(This appendix does not form an integral part of this Recommendation)

The decision of the study group or working party with respect to making the normative reference must be documented in the meeting record using the following format:

1 Clear description of the document.

(type of document, title, number, version, date, etc.).

2 Status of approval.

3 Justification for the specific reference:

(including why incorporation of the full text in the Recommendation is inappropriate).

4 Current information, if any, about IPR issues:

(including patents, copyrights, trademarks).

5 Other useful information describing the "Quality" of the document:

(e.g., length of time it has existed, whether products have been implemented using it, whether conformance requirements are clear, whether the specification is readily and widely available).

6 The degree of stability or maturity of the document.

7 Relationship with other existing or emerging documents.

8 When a document is referenced in an ITU-T Recommendation, all explicit references within that referenced document should also be listed.

9 Qualification of referenced organization:

(this need only be done the first time that a document from the referenced organization is being considered for referencing and only if such qualification information has not been documented already).

9.1 Objectives.

9.2 Organization: legal status and secretariat.

9.3 Membership.

9.4 Technical subject area.

9.5 IPR policy.

9.6 Working methods/processes.

9.7 Document publication and maintenance process.

9.8 Document change control process.

10 Other (for any supplementary information).

Recommendation ITU-T A.6

Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations

(1998; 2000; 2002; 2006; 2007; 2012)

1 Scope

In order to facilitate the development of cooperative relationships with national and regional standards development organizations, and to encourage cooperation and information exchange, procedures are provided, founded on the basis of reciprocity, for use when structuring the cooperation and information exchange process.

"National and regional standards development organizations", referred to as "standards development organizations" (SDOs) in the text that follows, are those organizations that develop standards recognized and implemented at the national and/or regional level. In this Recommendation, the term "approved document" refers to an official output of a standards development organization that has been formally approved. The term "draft document" refers to an output, which is still in draft form.

2 Procedures

Study groups are encouraged to make use of documents, both approved and in draft form, provided by standards development organizations, as appropriate. Similarly, standards development organizations are encouraged to make use of draft or approved ITU-T Recommendations. This Recommendation contains proc Study groups are encouraged to make use of documents, both approved and in draft form, provided by standards development organizations, as appropriate. Similarly, standards development organizations are encouraged to make use of draft or approved ITU-T Recommendations. This Recommendation contains procedures for formal cooperation and exchange of information between ITU-T study groups and standards development organizations that qualify, according to the criteria in Annex A. In particular, this Recommendation addresses the case of an organization accepting texts, in part or in whole, from another organization. The case of normative referencing is addressed in Recommendation ITU-T A.5. Establishing a communication process provides a framework for ongoing communications, in order to:

– prevent inadvertent duplication of effort, while allowing each organization to pursue its own mandate;

– provide authoritative information regarding one organization's dependencies on the other's work;

– exchange information on topics of mutual interest.

2.1 Establishment of the process for cooperation and exchange of information

Establishment of a process for cooperation and exchange of information between ITU-T study groups and standards development organizations should be considered on a case-by-case basis, and should be evaluated with due care and diligence using the set of criteria in Annex A. For ITU-T, the process is established at the study group level; for standards development organizations, the process is established at the appropriate level. To avoid multiple requests to a standards development organization for information pertaining to the criteria in Annex A, and to facilitate evaluation by study groups, the Director of TSB makes such requests,

and subsequently makes an analysis of the responses to verify that the organizations meet the relevant criteria. A schematic diagram of the process is provided in Appendix I.

2.1.1 Exchange of information initiated by an ITU-T study group

If a study group considers that it is beneficial to establish an exchange of information or documents with a standards development organization, the study group should first consult the ITU-T A.6-qualified organizations list (see 2.3) and obtain an analysis of that standards development organization from the Director. The study group reviews the analysis and decides whether or not to communicate with the standards development organization. If the standards development organization in question is not on the list, the study group chairman asks the Director to request the standards development organization to provide the information and fill in the questionnaire relating to the qualifying criteria set forth in Annex A. The Director performs a preliminary analysis of the standards development organization and transmits it to the affected study group(s), which shall review the analysis and make a decision whether or not to communicate. Any areas of concern should be immediately shared with other interested study group chairmen and the Director. If the study group decides to approve, the study group chairman establishes the cooperation document acceptance and exchange processes in accordance with 2.2.

2.1.2 Exchange of information initiated by a national or regional standards development organization

If a standards development organization contacts the Director of TSB to establish an exchange of information or documents with ITU-T, the Director should first determine whether the exchange of information or documents is relevant to:

a) the ITU-T Sector (for related policy issues); or

b) one or more study groups (for topics relating to their work).

In case *a)*, the Director evaluates the standards development organization according to the criteria in Annex A. If the Director decides to approve, he establishes the exchange and informs TSAG and all ITU-T study groups.

In case *b)*, the Director performs an analysis and transmits it to the affected study group(s), which shall review the analysis and make a decision whether or not to communicate. If multiple study groups are involved, the decision of each study group should be communicated to the others, to the TSAG and to the Director of TSB.

2.2 Process for cooperation and exchange of information once the process is established

2.2.1 Documents sent to ITU-T A.6-qualified national and regional standards development organizations

A standards development organization may accept, in whole or in part, the text of a draft or approved ITU-T Recommendation, as all or part of the text of its draft document, with or without modification to the ITU-T text.

When a standards development organization decides to accept ITU-T texts, it notifies TSB about the actions taken concerning those texts. The use, acceptance or reproduction of such texts by the standards development organization is subject to the copyright arrangements set out in 2.4.

A proposal to send a liaison statement to an ITU-T A.6-qualified standards development organization can arise from work by a rapporteur group, working party or study group. The decision to send such information

is made by the study group chairman in consultation with the relevant working party chairman, and, if arising from a study group meeting, with the agreement of the study group. The text is sent to the standards development organization by TSB on behalf of the study group.

When necessary, between scheduled meetings, the liaison statement may be prepared by an appropriate correspondence process and approved by the study group chairman in consultation with the study group management.

2.2.2 Documents received from ITU-T A.6-qualified national and regional standards development organizations

An ITU-T study group may accept from an ITU-T A.6-qualified standards development organization, in whole or in part, the text of a draft document, or an approved document, as all or part of the text of a draft ITU-T Recommendation, with or without modification to the text.

When an ITU-T study group decides to accept texts from an ITU-T A.6-qualified standards development organization, it notifies the organization about the actions taken concerning those texts. The use, acceptance or reproduction of such texts by the ITU-T study group is subject to the copyright arrangements set out in 2.4.

Documents submitted to the ITU-T study groups by ITU-T A.6-qualified standards development organizations should conform to criterion 8) in Annex A.

These documents are not issued as Contributions. As soon as they arrive they are made available, with the agreement of the study group chairman, for advance consideration by the relevant group. Moreover, they are issued as a document to the relevant group with a reference to the originating standards development organization, i.e. as a Temporary Document at a study group or working party meeting, or as a document at a rapporteur meeting. In the latter case, the receipt and disposition of the document received should be recorded in the report of the rapporteur meeting.

2.3 ITU-T A.6-qualified organizations list

The Director of TSB is requested to maintain an up-to-date ITU-T A.6-qualified organizations list and associated analyses of the national and regional standards development organizations that are under evaluation and/or have been approved for cooperation and exchange of information, including identification of the study groups concerned, and make it available online.

2.4 Copyright arrangements

The subject of modifications to texts and arrangements for royalty-free copyright licenses, including the right to sub-license, for texts accepted by either ITU-T or by ITU-T A.6-qualified standards development organizations and their publishers and others, is a matter to be agreed upon between TSB and the particular standards development organization. However, the originating organization retains the copyright for its texts.

2.5 Electronic document exchange

Where possible, the exchange of documents will be in electronic format. Questions of electronic links to enable document exchange is to be agreed upon by the Secretariats of the organizations concerned.

ANNEX A

Qualifying criteria for cooperation and exchange of information process with national and regional standards development organizations

(This annex forms an integral part of this Recommendation)

NOTE – An administration may require that cooperation and exchange of information with ITU-T or its study groups, by a national or regional standards development organization within that administration's jurisdiction, follow its established national procedures.

National or regional standards development organization attributes	**Desired characteristics**
1) Objectives/relationship of work to ITU-T work	Objectives should be the development, adoption and implementation of standards and the provision of input into international standards organizations, especially ITU-T.
2) Organization: – legal status; – accreditation; – secretariat; – nominated representative.	 – should indicate in which country/countries it has legal status; – should indicate the accrediting entity; – should identify the permanent secretariat; – should identify a representative.
3) Membership (openness)	– national or regional standards development organization membership criteria should not preclude any party with material interest; – membership should comprise a significant representation of telecommunications interests.
4) Technical subject areas	Should be relevant to a particular study group(s) or ITU-T as a whole.
5) IPR Policy and Guidelines on: *a)* patents; *b)* software copyright (if applicable); *c)* marks (if applicable); and *d)* copyright;	 *a)* should be consistent with "Common Patent Policy for ITU-T/ ITU-R/ISO/IEC" and "Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC" *); *b)* should be consistent with "ITU-T Software Copyright Guidelines"*); *c)* should be consistent with "ITU-T Guidelines related to the inclusion of Marks in ITU-T Recommendations"; *d)* ITU and ITU Member States and Sector Members should have the right to copy for standardization-related purposes (see also Rec. ITU-T A.1 with regard to copying and distribution).
6) Working methods/processes	– should be well-documented; – should be open and fair; – should support competition; – should explicitly consider anti-trust issues.

National or regional standards development organization attributes	Desired characteristics
7) Outputs	– outputs available to ITU-T should be identified; – process for ITU-T to obtain outputs should be identified.
8) Documents submitted to ITU-T	– should indicate source within the national or regional standards development organization (e.g. committee, subcommittee, etc.); – should indicate degree of stability of the document (e.g. preliminary, mature, stable, proposed date of adoption, etc.); – should indicate status of document (i.e. working document, draft, interim or approved standard).

* particularly, licences must be offered on a non-discriminatory basis on reasonable terms and conditions (whether free of charge or with monetary compensation) to both members and non-members.

APPENDIX I

Establishment of a process for cooperation and exchange of information under Rec. ITU-T A.6

(This appendix does not form an integral part of this Recommendation)

	1 **Initiation** (includes questionnaire in Annex A)	2 **Evaluation** according to the criteria	3 **Decision**	4 **Process once established** = implementation
2.1.1	Initiation of the request by an SG	The SG checks the ITU-T A.6-qualified list and reviews the analysis (if not on the list, see 2.1.2 *b)*	The SG decides to communicate	Communication process put into practice by the SG
2.1.2 *a)*	Initiation of the request by an SDO to the Director for related policy issues	Evaluation by the Director	The Director decides to approve and informs TSAG + SGs	Communication process put into practice by the Director
2.1.2 *b)*	Initiation of the request by an SDO to the Director for SG issues	The Director performs a preliminary analysis, the SG reviews the analysis	The SG decides to communicate, the SG informs other SGs TSAG and the Director	Communication process put into practice by the SG
		Director adds the SDO under evaluation to the list	Director indicates on the list that the SDO is ITU-T A.6-qualified	

Recommendation ITU-T A.7

Focus groups: Establishment and working procedures

(2000; 2002; 2004; 2006; 2008; 2012)

1 Scope

The objective of focus groups is to help advance the work of the ITU Telecommunication Standardization Sector (ITU-T) study groups and to encourage the participation of members of other standards organizations, including experts and individuals who may not be members of ITU. Focus group activities may include an analysis of gaps between current Recommendations and expected Recommendations, and provide material for consideration in the development of Recommendations.

Procedures and working methods are established to facilitate the financing of focus groups, the completion of work on a well-defined topic and the documentation of the results.

The process of establishment is described in order to help identify, in a timely and collaborative manner, all study groups concerned by the scope of a potential focus group, and to agree on a study group or the Telecommunication Standardization Advisory Group (TSAG) as the parent group.

The management of a focus group is placed under the responsibility of a parent group (study group or TSAG), in association with other involved study groups in the case where the work area of the focus group overlaps with the responsibility and the mandate of those study groups (see clause 2.2).

2 Establishment, terms of reference and leadership

Within the ITU-T standardization working structure, the establishment procedures of a focus group should be progressed in a transparent manner.

For each step of the establishment process, the compliance of the focus group proposal with all clauses of this Recommendation should be ensured, and all decisions are to be made by consensus.

2.1 Establishment

A focus group is established to help advance the work of ITU-T study groups.

To justify the establishment of a focus group, the following basic criteria shall be fulfilled to their full extent:

- There is a significant interest in the subject and a need to help advance the work of the ITU-T study groups
- The subject is not already addressed by work underway in ITU-T study groups, or cannot currently be handled by a study group
- There should normally be at least four members (i.e. Member States, or Sector Members from different Member States) who commit to actively support the new focus group.

Attention should be paid to distinguishing between the following two situations:

a) Topic is within the mandate of one study group

When the terms of reference of the focus group fall within the mandate of a single study group, that study group has the necessary authority to approve the formation of a focus group and become its parent group (see clause 2.1.1), provided that the chairman of this study group consults with the chairmen of all possibly impacted study groups. If there is any doubt that all the topics fall under the responsibility and mandate of only this study group, the decision of such an establishment should be referred to TSAG.

b) Topic is within the mandate of multiple study groups

When the terms of reference of the focus group fall within the mandate of multiple study groups, TSAG has the necessary authority to approve the formation of a focus group (see clause 2.1.2) and to become its parent group or appoint a study group as the parent group.

The study group or TSAG, when receiving the written contribution, should check to see which study group could best address the proposed activity for the focus group. The study group dealing with the proposal for a focus group that contains topics felt as potentially falling under the responsibility and mandate of one or more other study groups remains responsible for the consultation with the other relevant study group chairmen and for informing TSAG and the Director of TSB. The whole procedure for consultation should be kept responsive and fast by using, as often as possible, consultation of relevant parties by e-mail and teleconferencing tools, rather than physical meetings.

In all cases, the Director of TSB and the chairman of TSAG are to be kept duly advised during the establishment procedure.

The establishment of a focus group and its first meeting will be announced according to clause 12 by the Director of TSB in cooperation with the parent group.

2.1.1 Establishment by a study group

2.1.1.1 Establishment at a study group meeting

For establishment at a study group meeting, the submission of a proposal to set up a focus group on a specific topic, including terms of reference, should take the form of a written contribution submitted at least twelve calendar days before that study group meeting.

In the case that all topics fall without doubt, within the work area of this study group, the establishment will be discussed during this meeting, and may be decided at the same meeting.

If views are expressed that the proposed topic overlaps with the mandate of another study group, the chairman of the study group to which the proposal is addressed will send the proposal to the chairman of TSAG. The chairman of TSAG will then proceed as described in clauses 2.1.2.1 or 2.1.2.2 below.

2.1.1.2 Establishment between study group meetings

Exceptionally, in response to urgent marketplace needs, a focus group may be established between study group meetings for the purpose of studying technical issues (i.e. those that have no regulatory or policy implications).

The proposal, including terms of reference, to set up a focus group on a specific technical topic (within the mandate of the parent group) may be sent by any member to the chairman of an appropriate study group selected by the initiators according to the foreseen work content. The chairman coordinates the first review of the proposal with the vice-chairmen and the chairmen of working parties of the study group. If the proposal to establish the focus group is agreed, the proposal, with completed terms of reference, will be posted on the ITU website and distributed to the study group e-mail distribution list, allowing four weeks for comments.

In the absence of unresolved comments, the study group chairman may decide the immediate establishment of the focus group. As far as possible, the chairman should seek to resolve comments by correspondence; however, if this is not possible, the decision to approve the establishment of the focus group is to be deferred to the next meeting of the study group.

If views are expressed that the proposed focus group overlaps with the mandate of another study group, the chairman of the study group to which the proposal is addressed will send the proposal to the chairman of TSAG. The chairman of TSAG will then proceed as described in clauses 2.1.2.1 or 2.1.2.2.

2.1.2 Establishment by TSAG

2.1.2.1 Establishment at a TSAG meeting

For establishment at a TSAG meeting, the submission of a proposal to set up a focus group on a specific topic, including terms of reference, should take the form of a written contribution submitted at least twelve calendar days before that TSAG meeting.

The TSAG plenary can decide to establish the focus group and designate the parent group or be its parent group.

This way of proceeding can also be adopted to decide on cases transmitted according to clause 2.1.1.2 above, when the schedule of the TSAG meeting is compatible with a timely response, whereby the proposal must be available for the members at least twelve calendar days before the meeting.

2.1.2.2 Establishment between TSAG meetings

Exceptionally, in response to urgent marketplace needs, a focus group may be established between TSAG meetings for the purpose of studying technical issues (i.e. those that have no regulatory or policy implications).

A proposal to set up a focus group on a specific technical topic, including draft terms of reference, may be submitted by any member to the chairman of TSAG.

The chairman of TSAG coordinates the first review of the proposal with the vice-chairmen and working party chairmen of TSAG and chairmen of all study groups. If the proposal to set up a focus group is agreed, the proposal, with completed terms of reference and the nomination of the parent group, will be posted on the ITU-T website and distributed to the TSAG e-mail distribution list, allowing four weeks for comments.

In the absence of unresolved comments, the chairman of TSAG may decide the immediate establishment of the focus group. As far as possible, the chairman of TSAG should seek to resolve comments by correspondence; however, if this is not possible, the decision to approve establishment of the focus group is deferred to the next meeting of TSAG.

This way of proceeding can also be adopted to decide on cases transmitted according to clause 2.1.1.2 above, when the schedule of the TSAG meetings is not deemed to be compatible with a timely response.

2.2 Terms of reference

The topic for a particular focus group is to be well defined (prior to approval), and the terms of reference must include the scope of actions, a plan of action, the expected deliverables and the time schedules for completion.

The relationship of this work to that of the parent group must be indicated, in addition to relationships with other ITU study groups, standards organizations, forums and consortia, etc., and the degree of urgency of the specific topic. The justification that the intended activity cannot be handled as efficiently by study groups should be given.

It is expected that a focus group will complete its work in a short period of time, typically 9-12 months, following approval of its formation. In appropriate circumstances, and subject to review and approval by the parent group, the term and scope of a focus group may be extended.

During the life of the focus group, its terms of reference cannot be modified by the focus group itself. Any proposal to modify the terms of reference is to be submitted as a written contribution to the parent group for its consideration and approval.

If more than one study group is involved (i.e. the topic falls under the responsibility and mandate of one or more other study groups), a possible modification of the terms of reference (including scope) should be discussed with the other involved study groups before a decision is taken.

Extension of the lifetime requires a decision of the parent group (with no reservations by the other involved study groups in the case where a topic falls under the responsibility and mandate of one or more other study groups). The focus group will automatically stop if the parent group does not agree to extend the lifetime of the focus group.

2.3 Leadership

A chairman and vice-chairman are initially appointed by the parent group. If needed, after the initial establishment of the focus group, subsequent management appointments will be made by the focus group, and the parent group informed accordingly. Appointment of chairman and vice-chairman shall be primarily based upon demonstrated competence both in technical content of the parent group and in the management skills required.

Member States and ITU-T Sector Members will provide the chairmanship, but vice-chairmanships can be open to ITU-T Associates and academia, as well as to external experts.

A focus group chairman who is unable to carry out his or her duties is replaced by one of the vice-chairmen, who is chosen and appointed by the parent group at its next meeting. If none of the vice-chairmen is an ITU member, the parent group calls for candidates and the chairman is appointed at the next meeting of the parent group.

3 Focus group working procedures

3.1 Participation

Any individual from a country that is a member of ITU and who is willing to contribute actively to the work may participate in a focus group. This includes individuals who are also members of international, regional and national organizations.

Participation in focus groups shall not be used as an alternative to ITU membership.

A list of participants is to be maintained by the focus group for reference purposes. This list will include information for persons with disabilities on how their participation shall be facilitated.

Participation in focus groups that have impacts on strategic, structural and/or operational aspects of ITU-T is limited to ITU-T members.

4 Financing of focus groups and their meetings

Financing of meetings and their preparation is accomplished by volunteer hosting in a similar manner to rapporteur groups, or on the basis of financial arrangements determined by the focus group, provided there is no incremental increase in expenditure and no adverse impact on the normal work of the study groups and TSAG, except for encouraging the participation of persons with disabilities in accordance with *resolves* 3 and 4 of Resolution 175 (Guadalajara, 2010) of the Plenipotentiary Conference, and for supporting the participation of representatives of developing countries[1] in accordance with *resolves* 3 of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference.

5 Administrative support

Focus groups can establish their own method of providing and financing administrative support between meetings.

Where administrative services are requested from TSB, there shall be no incremental increase in expenditure and no adverse impact on the normal work of the study groups and TSAG, except for encouraging the participation of persons with disabilities in accordance with *resolves* 3 and 4 of Resolution 175 (Guadalajara, 2010)of the Plenipotentiary Conference, and for supporting the participation of representatives of developing countries in accordance with *resolves* 3 of Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference.

6 Meeting logistics

The frequency and location of meetings is decided by each focus group. Electronic document handling methods should be used as much as possible to advance the work rapidly(e.g. by using electronic conferences and the World Wide Web). Participation of persons with disabilities, including the provision of electronic documents in accessible formats, shall be encouraged in accordance with Resolution 175 (Guadalajara, 2010) of the Plenipotentiary Conference.

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

7 Working language

The language to be used will be mutually agreed by the focus group participants. However, any communication with the parent group shall preferably be in English or one of the other ITU official languages.

8 Technical contributions

Any participant may submit a technical contribution directly to the focus group, in accordance with the time schedule adopted. A template for contributions can be found on the ITU-T website. Electronic document transfer methods should be used whenever possible.

9 Intellectual property rights

The Common Patent Policy for ITU-T/ITU-R/ISO/IEC is to be used.

The chairman of a focus group should announce this during every meeting and record all responses in the meeting report.

The copyright provisions in Recommendation ITU-T A.1 are to be followed.

10 Deliverables – approval and distribution

Deliverables can be in the form of technical specifications, reports on standards gap analysis results, base material for the development of draft Recommendations, etc., and are expected to form input to the advanced work of the parent group. The focus group will send all of its deliverables to the parent group for further consideration (see also clause 7). The deliverables shall be published as TDs of the parent group in accordance with clause 3.3.3 of Recommendation ITU-T A.1, but no later than four calendar weeks before the meeting of the parent group.

For the sake of clarity, all the output/deliverables of a focus group should be posted on the parent group's website, whether or not one or more study groups are involved.

10.1 Approval of deliverables

Approval shall be obtained by consensus.

10.2 Printing and distribution of deliverables

Focus groups may select the method of printing and distribution of deliverables, including the target audience. Deliverables to the parent group, including progress reports, will be processed as TDs by the parent group.

NOTE – A focus group may, at its discretion, share working documents via liaison statements.

All costs must be covered by the focus group. ITU-T will not be expected to offer any printing and distribution services free of charge, except for progress reports submitted according to clause 11 below, and deliverables to study groups.

11 Progress reports

Focus group progress reports are to be provided at each meeting of the parent group meeting at least twelve calendar days before the meeting and transmitted in copy to all involved study groups. They will be posted in the form of TDs.

These progress reports to the parent group should include the following information:

– an updated work plan, including a schedule of planned meetings;

– status of work with reference to the work plan, including a list of outputs and the study groups for which they are intended;

– summary of contributions considered by the focus group;

– list of attendees at all meetings held since the last progress report.

The parent group chairman should keep TSAG advised of the progress of the focus group.

12 Meeting announcements

The establishment of a focus group will be announced in cooperation with the parent group via ITU publications and other means, including communication with other organizations and/or experts, technical journals and the World Wide Web.

The first meeting of a focus group will be arranged by the parent group and the initially appointed chairman.

The schedule of subsequent meetings of a focus group will be decided by the focus group. The process of announcing meetings can be decided by the focus group and will be published at least six weeks in advance on the ITU website.

13 Working guidelines

Focus groups may develop additional, internal working guidelines, as required.

Recommendation ITU-T A.8

Alternative approval process for new and revised ITU-T Recommendations

(2000; 2004; 2006; 2008)

1 General

1.1 Recommendations of the ITU Telecommunication Standardization Sector (ITU-T) will be approved using this alternative approval process (AAP), except Recommendations that have policy or regulatory implications, which will be approved using the traditional approval process (TAP) found in Resolution 1 of the World Telecommunication Standardization Assembly (WTSA).

The competent study group may also seek approval at a WTSA.

1.2 In accordance with the ITU Convention, the status of Recommendations approved is the same for both AAP and TAP methods of approval.

2 Process

2.1 Study groups should apply the AAP described below for seeking the approval of draft new and revised Recommendations as soon as they have been developed to a sufficiently mature state. See Figure 1 for the sequence of events.

3 Prerequisites

3.1 Upon request of the study group chairman, the Director of the Telecommunication Standardization Bureau (TSB) shall announce the intention to apply AAP and to initiate the last call set out in this Recommendation (see clause 4 below). Such action shall be based upon consent at a study group or working party meeting or, exceptionally, at a WTSA, that a draft Recommendation is sufficiently mature for such action. At this stage, the draft Recommendation is considered to have "CONSENT". The Director shall include a summary of the draft Recommendation in the announcement. Reference shall be provided to the documentation where the text of the draft new or revised Recommendation to be considered may be found. This information shall be made available to all Member States and Sector Members.

3.2 The text of the draft new or revised Recommendation must be available to TSB in a final edited form at the time that the Director makes the announcement of the intended application of the AAP set out in this Recommendation. Any associated electronic material included in the Recommendation (e.g., software, test vectors, etc.) must also be made available to TSB at the same time. A summary that reflects the final edited text of the draft Recommendation must also be provided to TSB, in accordance with clause 3.3 below.

3.3 Such a summary should be prepared in accordance with the Author's Guide for drafting ITU-T Recommendations. This summary is a brief outline of the purpose and content of the new or revised draft Recommendation and, where appropriate, the intent of the revisions. No Recommendation shall be considered as complete and ready for approval without this summary statement.

3.4 Approval may only be sought for a draft new or revised Recommendation within the study group's mandate as defined by the Questions allocated to it, in accordance with No. 192 of the Convention. Alternatively, or additionally, approval may be sought for amendment of an existing Recommendation within the study group's responsibility and mandate.

3.5 Where a draft new or revised Recommendation falls within the mandate of more than one study group, the chairman of the study group proposing the approval should consult and take into account the views of any other study group chairmen concerned before proceeding with the application of this approval procedure.

3.6 Recommendations are to be elaborated in accordance with the Common Patent Policy for ITU-T/ITU-R/ISO/IEC available at http://www.itu.int/ITU-T/ipr/. For example:

3.6.1 Any party participating in the work of ITU-T should, from the outset, draw the attention of the Director of TSB to any known patent or to any known pending patent application, either of their own or of other organizations. The "Patent Statement and Licensing Declaration" form from the ITU-T website is to be used.

3.6.2 ITU-T non-member organizations that hold patent(s) or pending patent application(s), the use of which may be required in order to implement an ITU-T Recommendation, can submit a "Patent Statement and Licensing Declaration" to TSB using the form available at the ITU-T website.

3.7 In the interests of stability, once a new or revised Recommendation has been approved, approval should not normally be sought within a reasonable period of time for any further amendment of that new text or that revised portion, respectively, unless the proposed amendment complements rather than changes the agreement reached in the previous approval process, or a significant error or omission is discovered. As a guideline, in this context "a reasonable period of time" would be at least two years, in most cases.

Amendments that correct defects may be approved, in accordance with clause 7.1.

4 Last call and additional review

4.1 The last call encompasses the four-week time period and procedures beginning with the Director's announcement of the intention to apply the alternative approval process (clause 3.1).

4.2 If TSB has received a statement(s) indicating that the use of intellectual property, protected by one or more copyright(s) or patent(s), issued or pending, may be required in order to implement a draft Recommendation, the Director shall post this information on the ITU-T website.

4.3 The Director of TSB shall advise the Directors of the other two Bureaux that Member States and Sector Members are being asked to comment on the approval of a proposed new or revised Recommendation.

4.4 During the last call, should any Member State or Sector Member be of the opinion that the draft new or revised Recommendation should not be approved, they should advise their reasons for disapproving and indicate the possible changes that would facilitate further consideration and approval of the draft new or revised Recommendation. TSB will make the comments available to the membership of ITU-T.

4.4.1 If no comments, other than comments indicating typographical error(s) (misspelling, syntactical and punctuation mistakes, etc.), are received by the end of the last call, the draft new or revised Recommendation is considered as approved, and the typographical errors are corrected.

4.4.2 If comments, other than those indicating typographical errors, are received by the end of the last call, the study group chairman, in consultation with TSB, makes the judgement whether:

1) a planned study group meeting is sufficiently close to consider the draft Recommendation for approval, in which case the procedures in clause 4.6 regarding approval at a study group meeting are applied; or

2) to save time and/or because of the nature and maturity of the work, comment resolution should be initiated under the direction of the study group chairman. This will be accomplished by appropriate study group experts, via electronic correspondence or at meetings. Revised, edited draft text is prepared, as appropriate, and the procedures beginning in clause 4.4.3 are applied.

4.4.3 After comment resolution is completed, and the revised and edited draft text is made available, the study group chairman, in consultation with TSB, makes the judgement whether:

a) a planned study group meeting is sufficiently close to consider the draft Recommendation for approval, in which case the procedures in clause 4.6 are applied; or

b) to save time and/or because of the nature and maturity of the work, an additional review should be initiated, in which case the procedures in clause 4.5 are applied.

4.5 The additional review encompasses a three-week time period and will be announced by the Director. The text (including any revisions as a result of comment resolution) of the draft Recommendation in a final edited form and comments from the last call must be made available to TSB at the time that the Director makes the announcement of the additional review. Reference shall be provided to the documentation where the text of the draft Recommendation and last call comments to be considered may be found.

4.5.1 If no comments, other than comments indicating typographical error(s) (misspelling, syntactical and punctuation mistakes, etc.), are received by the end of the additional review, the Recommendation is considered as approved, and the typographical errors are corrected by TSB.

4.5.2 If comments, other than comments indicating typographical errors(s), are received by the end of the additional review, then the procedures in clause 4.6 regarding approval at a study group meeting are applied.

4.6 The Director shall explicitly announce the intention to approve the draft Recommendation at least three weeks prior to the study group meeting. The Director shall include the specific intent of the proposal in summarized form. Reference shall be provided to the documentation where the draft text and comments from the last call (and additional review, if relevant) may be found. The edited text of the draft Recommendation from the additional review (or last call if there is no additional review) is submitted for approval by the study group meeting in accordance with clause 5 below.

5 Procedure at study group meetings

5.1 The study group should review the text of the draft new or revised Recommendation and the associated comments referred to in clause 4.6 above. The meeting may then accept any corrections or amendments to the draft new or revised Recommendation. The study group should reassess the summary statement in terms of its completeness.

5.2 Changes may only be made during the meeting as a consequence of written comments as a result of the last call, additional review, contributions, or temporary documents including liaison statements. Where proposals for such revisions are found to be justified but to have a major impact on the intent of the Recommendation or to depart from points of principle agreed at the previous study group or working party meeting, consideration of this approval procedure should not be applied at this meeting. However, in justified circumstances, the approval procedure may still be applied if the chairman of the study group, in consultation with TSB, considers:

– that the proposed changes are reasonable (in the context of the documentation described in this clause) for those Member States and Sector Members not represented at the meeting, or not represented adequately under the changed circumstances; and

– that the proposed text is stable.

However, if a Member State present declares that this text has policy or regulatory implications or there is a doubt, the approval procedure shall proceed according to Resolution 1, clause 9.3 or clause 5.8 below.

5.3 After debate at the study group meeting, the decision of the meeting to approve the Recommendation under this approval procedure must be unopposed (but see clauses 5.5, 5.7 and 5.8). Every effort should be made to reach unopposed agreement.

5.4 If, despite these attempts, unopposed agreement has not been reached, the Recommendation is considered as approved if, following consultation with their Sector Members present, no more than one Member State present in the meeting opposes the decision to approve the Recommendation (but see clauses 5.5, 5.6 and 5.8). Otherwise, the study group may authorize additional work to address the remaining issues.

5.5 In cases where a Member State or Sector Member does not elect to oppose approval of a text, but would like to register a degree of concern on one or more aspects, this shall be noted in the report of the meeting. Such concerns shall be mentioned in a concise note appended to the text of the Recommendation concerned.

5.6 A decision must be reached during the meeting on the basis of a text available in its final form to all participants at the meeting. Exceptionally, but only during the meeting, a Member State may request more time to consider its position for clause 5.4 above. Unless the Director of TSB is advised of their opposition within a period of four weeks from the end of the meeting, the Recommendation is approved and the Director shall proceed in accordance with clause 6.1.

5.6.1 A Member State that requested more time to consider its position and that then indicates disapproval within the four-week interval specified in clause 5.6 above is requested to include its reasons and to indicate the possible changes that would facilitate further consideration, if required, for future approval of the draft new or revised Recommendation.

5.7 A Member State or Sector Member may advise at the meeting that it is abstaining from the application of the procedure. Their presence shall then be ignored for the purposes of clause 5.3 above. Such an abstention may subsequently be revoked, but only during the course of the meeting.

5.8 If the draft new or revised Recommendation is not approved, the study group chairman, after consultation with the parties concerned, may proceed according to clause 3.1 above, without further CONSENT at a subsequent working party or study group meeting.

6 Notification

6.1 The Director of TSB shall promptly notify the membership of the results (indicating approval or non-approval) of the last call and additional review.

6.2 Within two weeks of the closing date of the study group meeting described in clauses 5.3 to 5.5 above or, exceptionally, two weeks after the period described in clause 5.6, the Director shall notify whether the text is approved or not by a circular. The Director shall arrange for this information to also be included in the next available ITU Operational Bulletin. Within this same time period, the Director shall also ensure that any Recommendation approved is available online, with an indication that the Recommendation may not be in its final publication form.

6.3 Should minor, purely editorial amendments or correction of evident oversights or inconsistencies in the text as presented for approval be necessary, TSB may correct these with the approval of the chairman of the study group.

6.4 The Secretary-General shall publish the approved new or revised Recommendations as soon as practicable, indicating, as necessary, a date of entry into effect. However, in accordance with Recommendation ITU-T A.11, minor amendments may be covered by corrigenda rather than a complete reissue. Also, where appropriate, texts may be grouped to suit market needs.

6.5 Text shall be added to the cover sheets of all new and revised Recommendations urging users to consult the ITU-T patent database and the ITU-T software copyright database. Suggested wording is:

> "ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed intellectual property right. ITU takes no position concerning the evidence, validity or applicability of claimed intellectual property rights, whether asserted by ITU Member States and Sector Members or by others outside of the Recommendation development process."
>
> "As of the date of approval of this Recommendation, ITU had/had not received notice of intellectual property, protected by patents/software copyrights, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the appropriate ITU-T databases available at the ITU-T website."

6.6 See Recommendation ITU-T A.11 concerning the publication of new and revised Recommendations.

7 Correction of defects

7.1 When a study group identifies the need for implementers to be made aware of defects (e.g., typographical errors, editorial errors, ambiguities, omissions or inconsistencies and technical errors) in a Recommendation, one mechanism that may be employed is an implementers' guide. This guide is a historical document recording all identified defects and their status of correction, from their identification to final resolution. Implementers' guides shall be agreed by the study group, or agreed by one of its working parties with the concurrence of the study group chairman. Implementers' guides shall be made available by posting on the ITU-T website with open access.

8 Deletion of Recommendations

Study groups may decide in each individual case which of the following alternatives is the most appropriate one.

8.1 Deletion of Recommendations by WTSA

Upon the decision of the study group, the chairman shall include in his report to WTSA the request to delete a Recommendation. WTSA may approve this request.

8.2 Deletion of Recommendations between WTSAs

8.2.1 At a study group meeting it may be agreed to delete a Recommendation, i.e. because it has been superseded by another Recommendation or because it has become obsolete. This agreement by the Member States and Sector Members present at the meeting must be unopposed. If unopposed agreement has not been reached, the same criteria as in clause 5.4 above are applied. Information about this agreement, including an explanatory summary about the reasons for the deletion, shall be provided by a circular. If no objection to the deletion is received from a Member State or a Sector Member within three months, the deletion will come into force. In the case of objection, the matter will be referred back to the study group.

8.2.2 Notification of the result will be given in another circular, and TSAG will be informed by a report from the Director of TSB. In addition, the Director shall publish a list of deleted Recommendations whenever appropriate, but at least once by the middle of a study period.

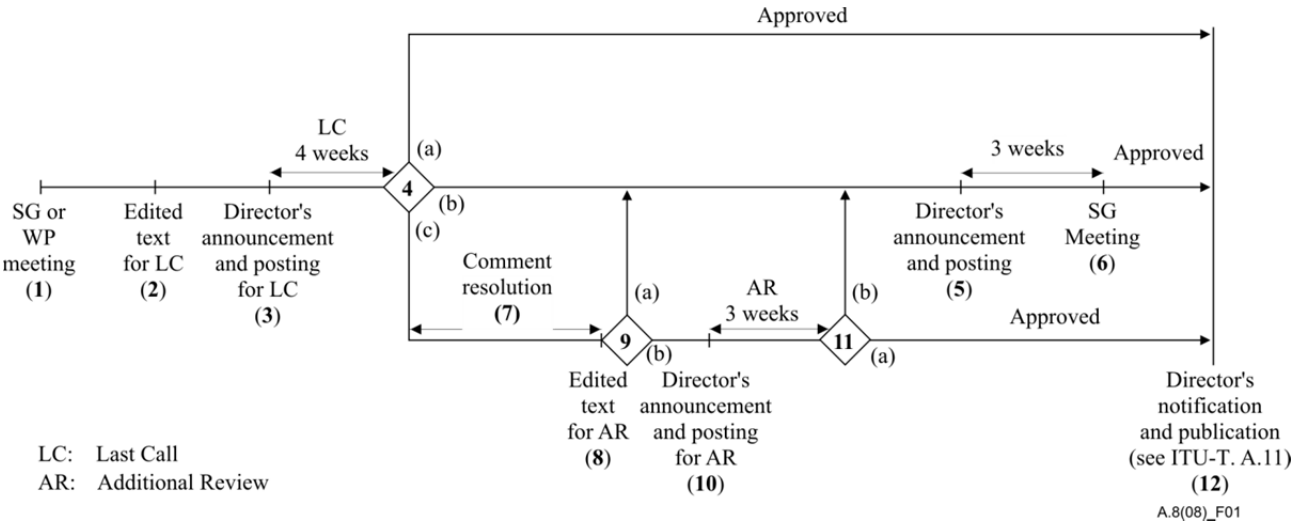


Figure 1 – Sequence of events

Notes to Figure 1 – AAP sequence of events

1) *SG or WP consent* – The study group or working party concludes that the work on a draft Recommendation is sufficiently mature to begin the alternative approval process and to initiate the last call (clause 3.1).

2) *Edited text available* – The final, edited, draft text, including summary, is provided to TSB, and the study group chairman requests the Director to initiate the last call (clause 3.2). Any associated electronic material included in the Recommendation must also be made available to TSB at the same time.

3) *Director's last call announcement and posting* – The Director announces the beginning of the last call to all Member States, Sector Members and Associates, with reference to the summary and complete text. If the draft Recommendation has not already been electronically posted, it is done at this time (clause 3.1).

4) *Last call judgement* – The study group chairman, in consultation with TSB, makes the judgement whether:

   a) no comments other than those indicating typographical errors have been received. In this case, the Recommendation is considered as approved (clause 4.4.1);

   b) a planned study group meeting is sufficiently close to consider the comments received (clause 4.4.2); or

   c) to save time and/or because of the nature and maturity of the work, comment resolution should be initiated leading to the preparation of edited texts (clause 4.4.2).

5) *Director's study group announcement and posting* – The Director announces that the next study group meeting will consider the draft Recommendation for approval and will include reference to either:

   a) the draft Recommendation (the edited text (LC) version) plus the comments received from the last call (clause 4.6); or

   b) if comment resolution has been carried out, the revised draft Recommendation text. If the revised draft Recommendation has not already been electronically posted, it is done at this time (clause 4.6).

6) *Study group decision meeting* – The study group meeting reviews and addresses all written comments and either:

   a) proceeds under WTSA Resolution 1 or clause 5.8, as appropriate, if there might be policy or regulatory implications (clause 5.2); or

   b) approves the draft Recommendation (clause 5.3 or 5.4); or

   c) does not approve the draft Recommendation. If it is concluded that a further attempt at addressing comments received is appropriate, then additional work should be done and the process returns to step 2 (without further CONSENT at a working party or study group meeting) (clause 5.8).

7) *Comment resolution* – The study group chairman, with assistance from TSB and experts, via electronic correspondence and rapporteur and working party meetings, where appropriate, addresses the comments and prepares a new edited draft Recommendation text (clause 4.4.2).

8) *Edited text available* – The revised edited text, including summary, is provided to TSB (clause 4.4.2).

9) *Next step judgement* – The study group chairman, in consultation with TSB, makes the judgement whether:

a) a planned study group meeting is sufficiently close to consider the draft Recommendation for approval (clause 4.4.3 a); or

b) to save time and/or because of the nature and maturity of the work, an additional review should be initiated (clause 4.4.3 b).

10) *Director's additional review announcement and posting* – The Director announces the beginning of the additional review to all Member States and Sector Members, with reference to the summary and complete text of the revised draft Recommendation. If the revised draft Recommendation has not already been electronically posted, it is done at this time (clause 4.5).

11) *Additional review judgement* – The study group chairman, in consultation with TSB, makes the judgement whether:

a) no comments other than those indicating typographical errors have been received. In this case, the Recommendation is considered approved (clause 4.5.1); or

b) comments other than those indicating typographical errors have been received. In this case, the process proceeds to the study group meeting (clause 4.5.2).

12) *Director's notification* – The Director notifies the members that the draft Recommendation has been approved (clause 6.1 or 6.2).

Recommendation ITU-T A.11

Publication of ITU-T Recommendations and World Telecommunication Standardization Assembly proceedings

(2000; 2004; 2008; 2012)

1 Introduction

Under No. 98 of the ITU Convention, the Secretary-General is charged with the task of publishing Recommendations, and Recommendation ITU-T A.12 of the ITU Telecommunication Standardization Sector (ITU-T) sets out the identification and layout of ITU-T Recommendations. In addition to the publication of ITU-T Recommendations, the procedures for publishing the proceedings of the World Telecommunication Standardization Assembly (WTSA) are specified below.

It should be noted that although the designation "CCITT" has not been applied to new publications for some time, references to CCITT and ITU-T Recommendations are contained in numerous legal documents throughout the world.

2 Publication of Recommendations

2.1 Each new and revised Recommendation should be made available to the public as soon as practicable after it has been approved, and in each language as soon as it is available (see Annex A).

2.2 Each new and revised Recommendation should be added to a directly accessible database of ITU-T Recommendations.

2.3 The collection of approved Recommendations should also be published on an appropriate distribution medium.

2.4 Adequate indexing should be provided on all media.

2.5 The current status of each Recommendation in the complete range of Recommendations, including those approved by CCITT prior to 1993, should be accessible online.

3 Publication of WTSA proceedings

3.1 To provide a record of the proceedings of each assembly, an ITU-T Book should be published with the contents restricted to the following in principle:

– Resolutions and Opinions adopted by the assembly;

– Recommendations on the organization of the work of ITU-T (A-series);

– a list of the study groups, the advisory group and any other groups established or maintained by the assembly, with their titles and general areas of work;

– titles of the Questions (continuing or newly approved for study) and their allocation;

– reports of the committees of the assembly.

NOTE – The list of participants and list of documents of the assembly may be provided in the book, or pointers may be provided as to where the online list of participants and the online list of documents of the assembly may be found.

3.2 Resolutions and ITU-T A-series Recommendations should also be published individually in electronic form.

3.3 The colour of the cover of the ITU-T Book recording the results of WTSA will rotate successively through the colours of previous books in their chronological order, i.e. white, green, orange, yellow, red and blue.

4 Associated activities

4.1 The Director of the Telecommunication Standardization Bureau (TSB) should observe the annexed guidelines (see Annex A) when managing the continuing process of publishing Recommendations during the upcoming study period.

4.2 The Director of TSB should report to the next WTSA and to the intervening meetings of TSAG on any difficulties encountered in the timely publication of texts, with proposals for remedial action.

5 Relation with the Council

The Director of TSB should invite the Council to consider what adjustments, if any, may be needed to the ITU policy on publication, pricing, etc., in order to facilitate the rapid, wide and effective dissemination of ITU-T Recommendations.

ANNEX A

Guidelines on publication of ITU-T Recommendations

(This annex forms an integral part of this Recommendation)

A.1 The following guidelines have been drawn up to assist in the timely publication of the approved ITU-T Recommendations. These guidelines should apply to those ITU services involved in the publication and distribution of Recommendations, and (to the extent relevant) to other organizations permitted by ITU to publish and distribute Recommendations under conditions and arrangements established with ITU.

A.2 From the users' viewpoint, the main principles that need to be applied are:

a) the maximum feasible use of electronic publishing of Recommendations through direct online access to databases that are updated as soon as possible after approval of the Recommendations and by periodic publication on an appropriate distribution medium;

b) unambiguous labelling of Recommendations to identify successive versions (see Recommendation ITU-T A.12);

c) convenient (e.g. online or on a distribution medium) access to appropriate guidance and definitive information on prices, availability and current status of Recommendations;

d) simple-to-use indexes and search facilities to locate specific subjects without necessarily knowing the titles or understanding the general structure and letter series used to designate ITU-T Recommendations.

A.3 Immediately after the conditions for its approval have been met, a new or revised Recommendation should be made available to the public, in accordance with the conditions established by ITU.

Recommendations should be made available[1] in appropriate formats, such as:

- online access – as soon as practicable;
- DVD – periodically (e.g. quarterly).

Minor modifications may be covered by publishing amendments or corrigenda rather than reissuing the complete Recommendation.

A.4 The current status of the complete range of Recommendations must be accessible on a database at any time.

A.5 Adequate indexing and search facilities should be provided.

A.6 For research and reference purposes, ITU should maintain permanently in an archive an official copy of all Recommendations that are or have been valid.

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[1] Paper copies should be made available as quickly as possible at the request of a Member State, Sector Member or Associate not possessing electronic facilities, by which they can access publications of the Union.

A.7 The generally accessible online database of Recommendations should contain versions of Recommendations currently in force and versions previously in force since the 1988 Blue Book.

A.8 ITU copyright should be strictly enforced on all formats of ITU-T Recommendations.

Recommendation ITU-T A.12

Identification and layout of ITU-T Recommendations

(2000; 2004; 2008)

1 Scope

The Telecommunication Standardization Advisory Group (TSAG) periodically reviews the methods of identifying and laying out Recommendations as well as the Author's Guide for drafting ITU-T Recommendations, prepared and updated by the Telecommunication Standardization Bureau (TSB), providing thus detailed guidelines on format and style. This Recommendation provides principles that are applied in identifying and laying out Recommendations.

2 Identification and layout of Recommendations

2.1 All Recommendations of the ITU Telecommunication Standardization Sector (ITU-T) shall be numbered. The number of each Recommendation shall have a letter prefix referring to the series as well as a number identifying the particular subject in that series. The numbering shall be done in a manner that permits clear, unequivocal identification and facilitates electronic storage of information concerning the Recommendation. The Recommendation number shall be associated on the cover with the date of approval in the format YYYY. The month may be added if required for uniqueness.

2.2 The scope of the series identified by the letter shall be as follows:

A Organization of the work of ITU-T

B *Not allocated*

C *Not allocated*

D General tariff principles

E Overall network operation, telephone service, service operation and human factors

F Non-telephone telecommunication services

G Transmission systems and media, digital systems and networks

H Audiovisual and multimedia systems

I Integrated services digital network

J Cable networks and transmission of television, sound programme and other multimedia signals

K Protection against interference

L Construction, installation and protection of cables and other elements of outside plant

M Telecommunication management, including TMN and network maintenance

N Maintenance: international sound-programme and television-transmission circuits

O Specifications of measuring equipment

P Telephone transmission quality, telephone installations, local line networks

Q Switching and signalling

R Telegraph transmission

S Telegraph services terminal equipment

T Terminals for telematic services

U Telegraph switching

V Data communication over the telephone network

W *Not allocated*

X Data networks, open system communications and security

Y Global information infrastructure, Internet protocol aspects and next-generation networks

Z Languages and general software aspects for telecommunication systems

2.3 Recommendations in each series shall be classified in sections, according to subject.

2.4 The title of each Recommendation should be concise (preferably no more than one line) but unique, meaningful and unambiguous. The details identifying the precise intent and coverage should be contained in the text where possible (e.g., under "Scope" clause).

2.5 The date of formal approval of the Recommendation, the study group(s) responsible for its approval and a record of revisions shall be clearly indicated.

2.6 The author of a new or revised Recommendation shall provide, in front of the main body of the Recommendation, a summary as outlined in the "Author's Guide for drafting ITU-T Recommendations". The author may also provide other up-front elements, such as background information and keywords, as provided for in the Author's Guide.

2.7 The "Author's Guide for drafting ITU-T Recommendations" should be applied in drafting new Recommendations and, wherever practicable, in revising existing Recommendations.

Recommendation ITU-T A.13

Supplements to ITU-T Recommendations

(2000; 2007)[1]

1 Introduction

In the course of its studies, each study group deals with contributions and reports, which are distributed to those organizations that have registered for participation in the study group's work and Recommendations resulting from those studies reach a much wider audience. Normally, any information that is considered as merely illustrative or supplementary to a Recommendation should be included as a (non-integral) Appendix to that Recommendation, where it is useful to the wider audience. However, there are exceptional instances where separate publication of such information is warranted, in the form of Supplements to the Recommendations.

2 Supplements

The following general principles shall be applied by study groups for the development, approval, identification and revision of Supplements:

2.1 Before proposing any new or revised text as a Supplement, a study group or TSAG should ensure, in consultation with the Director, that:

i) the subject matter is within its mandate;

ii) there is a sufficient need for the information on a long-term basis;

iii) the text cannot be reasonably adapted for inclusion in an existing or new Recommendation (e.g., as an appendix);

iv) the text is sufficiently mature and that the text follows, as far as possible, the format of the "Author's Guide for drafting ITU-T Recommendations";

v) the text contains material that is supplementary to and associated with the subject matter of one or more Recommendations but is not essential to their completeness or understanding and implementation.

2.2 Supplements do not require approval according to Resolution 1 or Recommendation ITU-T A.8 procedures; agreement by the study group or by TSAG (in case of a Supplement developed by TSAG) is sufficient. A working party may agree to a Supplement if the study group that set up the working party has previously identified this Supplement and has authorized the working party to do so at the previous study group meeting, provided that such Supplement is not related or linked to any Recommendation having policy or regulatory implications, in accordance with Nos. 246D to 246 H of the ITU Convention.

2.3 Supplements should be limited in number and volume.

2.4 Supplements are only informative and are therefore not considered to be an integral part of any Recommendation. They do not imply any agreement on the part of ITU-T.

2.5 Each Supplement should be unambiguously identified by the series letter to which it is associated, followed by a sequential number unique within that series.

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[1] This publication includes the version of Recommendation ITU-T A.13 that was approved in 2000 and incorporating its Amendment 1 (2007).

2.6 Since Supplements are essentially reference material, no onus is implied on the issuing study group to update or to reissue Supplements. However, should reference to a Supplement be made in a Recommendation, the study group should review the applicability both of that reference and the Supplement at least once every four years, and take any necessary action.

2.7 Supplements should be included in databases along with ITU-T Recommendations, but may be deleted after consultation with the concerned study group if not reviewed or updated after a period of eight years.

2.8 To the extent practicable, Supplements will be published in a similar fashion to Recommendations, but with a lower priority, and taking into account market needs.

Recommendation ITU-T A.23

Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) on information technology

(1993; 1996)

The WTSA,

considering

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

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

c) that Resolution 7 (Geneva, 1996) recognizes common interests with ISO and IEC concerning telecommunication and information technologies, as well as some other topics and cooperation with them by the appropriate means,

decides

1 that, in accordance with Resolution 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 for those subjects in the field of information technology including data transmission, multimedia, open system communications and telematic services, etc., where there is a common interest and where it is agreed that coordination is desirable, then text should be drawn up mutually and kept aligned;

3 that in carrying on the respective 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-T and ISO/IEC JTC 1 cooperation is given in Annex A, which contains a set of procedures for cooperation between the two sides. These procedures, which have also been adopted by ISO/IEC JTC 1, should be used, with flexibility, according to need. The "Rules for presentation of ITU-T | ISO/IEC common text"[1] in Annex A should be respected in the drafting of common texts.

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1 The Guide is published as a separate booklet and is available from TSB.

ANNEX A

(to Recommendation ITU-T A.23)
Guide for ITU-T and ISO/IEC JTC 1 cooperation

1 Introduction

1.1 Purpose

This document contains a set of procedures for cooperation between ITU-T and ISO/IEC JTC 1. It is written in an informal style, much like a tutorial, to be a practical, educational and insightful reference for both leaders and participants in cooperative work.

1.2 Background

The ITU-T and ISO and IEC have long established cooperative relationships. For many years, the continued merging of technologies for which these individual organizations have been responsible has resulted in an increasing interdependency of a growing portion of the work programs. This has led, for example, to the creation by ISO and IEC of Joint Technical Committee 1 (JTC 1) on Information Technology. Cooperative arrangements between the ITU-T and ISO/IEC have been growing.

In June 1988, an ad hoc group of CCITT and ISO/IEC JTC 1 leaders met to review the then existing situation of cooperation. Recognizing that these cooperative efforts will continue to grow, the ad hoc group felt it would be beneficial to develop and document a set of procedures which builds upon past successes to facilitate future efforts. As a result, an *Informal Guide on CCITT and ISO/IEC JTC 1 Cooperation* was produced.

This Informal Guide recognized that the areas for cooperative work between CCITT and ISO/IEC JTC 1 are a small portion of the total work program of both organizations. Therefore, it was determined that the practical way to achieve successful cooperation is to work within the flexibility existing within the procedures of each organization rather than to define a fundamentally new framework.

Since that time considerable experience has been gained in the use of the procedures. Consequently, a second meeting of the ad hoc group was held in September 1991 to review and refine the procedures. A draft revised Guide was produced at that meeting and adopted by both CCITT and JTC 1 for interim use, pending formal approval.

The draft revised Guide recognized the value of collaboration between the two organizations in building consensus in areas of common interest and in extending this collaboration to the publication of common text Recommendations and International Standards to better serve the needs of industry and users. Considerable attention was given to defining efficient collaborative procedures that make the best use of resources to produce timely results.

Further revision was made as a result of the formal review and to reflect updated procedures of both organizations. The Guide was adopted by the WTSC and JTC 1 in March 1993.

By 1996, with the experience of developing more than 150 collaborative Recommendations | International Standards, the Guide was updated to reflect insights gained through this experience and to reflect revisions in the procedures of both organizations. The updated Guide was adopted by the WTSC in October 1996 and JTC 1 in December 1996.

In 2001, the Guide was again updated to reflect revisions in the procedures of both organizations. The updated Guide was adopted by the ITU-T in November 2001 and JTC 1 in November 2001.

In 2010, the Guide was again updated to reflect closer alignment of the JTC 1 procedures to those in common between ISO and IEC, and to reflect revised procedures in the ITU-T. It also takes into account the common patent policy for ITU-T/ITU-R/ISO/IEC adopted in 2006. The updated Guide was adopted by the ITU-T in February 2010 and JTC 1 in June 2010.

1.3 Organization of the Guide

The remainder of clause 1 provides a listing of useful references, definitions and abbreviations pertinent to ITU-T and JTC 1 cooperation. Clauses 2 and 3 provide tutorial information on the structure and procedures of ITU-T and JTC 1.

The detailed procedures for ITU-T and JTC 1 cooperation are given in clauses 4 through 10 and Appendix I. They supplement, and sometimes repeat for clarity, the basic procedures of each organization (for example, those given in WTSA Resolution No. 1, in Recommendation ITU-T A.1 and in the JTC 1 Supplement to ISO/IEC Directives) which remain controlling.

Drafting rules for editors to use in the preparation of common text Recommendations | International Standards are specified in Appendix II.

1.4 References

1.4.1 ITU-T references

1.4.1.1 General

Most information about the ITU and the ITU-T can be found on the ITU website at http://www.itu.int.

The fundamental documents of the ITU are its Constitution and its Convention, which can be found in "Collection of the basic texts of the International Telecommunication Union adopted by the Plenipotentiary Conference, Edition 2007".

The ITU-T WTSA Proceedings of the current Study Period contains the Resolutions and A-series Recommendations approved by the last World Telecommunication Standardization Assembly (WTSA), and includes a listing of the Study Groups and a listing of the Questions allocated to each Study Group.

Contribution No. 1 of each Study Group contains the detailed text for each Question assigned to the Study Group by the WTSA. Changes concerning A-series Recommendations and Questions are published via TSB Circulars and available on the ITU website.

1.4.1.2 WTSA Resolutions

The latest set of WTSA Resolutions is available on the ITU website at http://www.itu.int/publ/T-Res/. Five Resolutions of particular relevance to ITU-T and ISO/IEC JTC 1 cooperation are listed below.

– Resolution 1, *Rules of procedure of the ITU Telecommunication Standardization Sector (ITU-T)*.

– Resolution 2, *ITU-T study group responsibility and mandates*.

– Resolution 7, *Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)*.

– Resolution 22, *Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies*.

– Resolution 67, *Creation of a Standardization Committee for Vocabulary.*

1.4.1.3 A-series Recommendations

A-series Recommendations are adopted by the WTSA or by the Telecommunication Standardization Advisory Group (TSAG) between WTSAs. The latest set is available on the ITU website at http://www.itu.int/rec/T-REC-A. Ten A-series Recommendations of particular relevance to ITU-T and ISO/IEC JTC 1 cooperation are listed below.

– Recommendation ITU-T A.1 (2008), *Work methods for study groups of the ITU Telecommunication Standardization Sector (ITU-T)*.

– Recommendation ITU-T A.2 (2008), *Presentation of contributions to ITU-T*.

– Recommendation ITU-T A.4 (2002), *Communication process between ITU-T and Forums and Consortia*.

– Recommendation ITU-T A.5 (2001), *Generic procedures for including references to documents of other organizations in ITU-T Recommendations*.

– Recommendation ITU-T A.6 (2002), *Cooperation and exchange of information between ITU-T and national and regional standards development organizations*.

– Recommendation ITU-T A.8 (2008), *Alternative approval process for new and revised ITU-T Recommendations*.

– Recommendation ITU-T A.11 (2008), *Publication of ITU-T Recommendations and WTSA proceedings*.

– Recommendation ITU-T A.12 (2008), *Identification and layout of ITU-T Recommendations.*

– Recommendation ITU-T A.13 (2000), *Supplements to ITU-T Recommendations.*

– Recommendation ITU-T A.23 (1996), *Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) on information technology*.

1.4.2 ISO/IEC references

1.4.2.1 General

Most information about the ISO can be found on its web site at http://www.iso.org. Similarly, most information about the IEC can be found on its web site at http://www.iec.ch. This information includes:

– Catalogue of IEC Publications [This online publication lists all IEC standards issued as of the first day of the year]

– IEC Yearbook [This annual publication lists all the Technical Committees and Subcommittees of IEC and, for each, lists the subjects under consideration and the publications prepared]

– ISO Catalogue [This online publication lists all published International Standards and Technical Reports of ISO]

– ISO Memento [This annual publication lists all the Technical Committees of ISO and gives their scope and committee structure]

– ISO Technical Programme [This semi-annual publication lists the status of all documents that have reached the balloting stage (e.g., CD, DAM, DIS, DTR)]

– ISO/IEC Directives – Part 1:2009, Procedures for the technical work

– ISO/IEC Directives – Part 2:2004, Rules for the structure and drafting of International Standards

– ISO/IEC Directives – JTC 1 Supplement:2010

1.4.2.2 JTC 1

Most information about ISO/IEC JTC 1 can be found on its site at http://www.jtc1.org. The key document setting forth the specific procedures for JTC 1 is the ISO/IEC Directives – JTC 1 Supplement "Procedures Specific to JTC 1".

1.4.2.3 Subcommittees of JTC 1

Subcommittees of JTC 1 maintain their respective web sites, linked from the JTC 1 site. Prior to each JTC 1 plenary, SC Chairmen prepare the Subcommittee Business Plans, including a management summary, a period review and the priorities for the next period.

1.5 Definitions

1.5.1 ITU-T definitions

1.5.1.1 Additional Review: A 3-week period in the Alternative Approval Process where Member States and Sector Members review the text of a Recommendation put for approval and can submit comments.

1.5.1.2 Alternative Approval Process (AAP): The procedure for approval of Recommendations that do not have regulatory or policy implications.

1.5.1.3 Consent: A step in the Alternative Approval Process where a Study Group or Working Party agrees that the text of a Recommendation is sufficiently mature.

1.5.1.4 Consultation: A step in the Traditional Approval Process where Member States are asked to delegate authority for approval of a Recommendation to the next meeting of the Study Group.

1.5.1.5 Determination: A step in the Traditional Approval Process where a Study Group or Working Party agrees that the text of a Recommendation is sufficiently mature.

1.5.1.6 Last Call: A 4-week period in the Alternative Approval Process where Member States, Sector Members and Associates review the text of a Recommendation put for approval and can submit comments.

1.5.1.7 Question: Description of an area of work to be studied, normally leading to the production of one or more new or revised Recommendations.

1.5.1.8 Traditional Approval Process (TAP): The procedure for approval of Recommendations that may have regulatory or policy implications.

1.5.2 ISO/IEC JTC 1 definitions

1.5.2.1 Amendment (AMD): A published amendment to an International Standard.

1.5.2.2 Category A Liaison: An external liaison organization which participates actively in a broad spectrum of work in JTC 1 or in a JTC 1/SC.

1.5.2.3 Committee Draft (CD): Text for a proposed International Standard which has been registered for ballot at the Subcommittee (SC) level – stage 3, committee stage.

1.5.2.4 Draft Amendment (DAM): Text for a proposed amendment to an International Standard which is at stage 4, enquiry stage.

1.5.2.5 Draft International Standard (DIS): Text for a proposed Draft International Standard which is at stage 4, enquiry stage.

1.5.2.6 Draft Technical Report (DTR): Text for a proposed Technical Report which has been submitted for balloting by National Bodies of JTC 1.

1.5.2.7 Final Draft Amendment (FDAM): Text for a proposed amendment to an International Standard which has been submitted for balloting by ISO and IEC National Bodies – stage 5, approval stage.

1.5.2.8 Final Draft International Standard (FDIS): Text for a proposed International Standard which is at stage 5, approval stage.

1.5.2.9 International Standard: A published ISO/IEC standard.

1.5.2.10 International Standardized Profile (ISP): A published ISO/IEC standardized profile.

1.5.2.11 Information Technology Task Force (ITTF): A group of individuals from the staffs of the ISO Central Secretariat and the IEC Central Office that provide joint support for the activities of JTC 1.

1.5.2.12 New work item Proposal (NP): Text for a proposed item to be added to the program of work which is at stage 1, proposal stage and has been registered for ballot at the JTC 1 or Subcommittee (SC) level.

1.5.2.13 Proposed Draft Amendment (PDAM): Text for a proposed amendment to an International Standard which has been registered for ballot at the Subcommittee (SC) level.

1.5.2.14 Proposed Draft Technical Report (PDTR): Text for a proposed Technical Report which has been registered for ballot at the Subcommittee (SC) level – stage 3, committee stage.

1.5.2.15 Technical Report (TR): A document not suitable for issue as an International Standard but valuable for publication in the interests of standardization.

1.5.2.16 Technical Specification (TS): A document not mature for issue as an International Standard but valuable for publication in the interests of standardization.

1.5.2.17 Working Draft (WD): A document at stage 2, preparatory stage, pertaining to a work item with a view to leading toward a Committee Draft.

1.5.3 ITU-T and JTC 1 cooperation definitions

1.5.3.1 Collaborative Interchange: A mode of ITU-T and JTC 1 collaboration aimed at producing one or more common (or twin) text Recommendations | International Standards by means of close liaison and synchronized approval (see clause 7).

1.5.3.2 Collaborative Team (CT): (1) A mode of ITU-T and JTC 1 collaboration aimed at producing one or more common (or twin) text Recommendations | International Standards by means of common meetings and synchronized approval (see clause 8); (2) A group composed of individuals from a JTC 1 SC and an ITU-T SG that collaboratively develops common (or twin) text for one or more Recommendations | International Standards (see clause 8).

1.5.3.3 Identical Recommendations | International Standards (or "common text"): These are Recommendations and International Standards which were developed jointly by ITU-T and ISO/IEC and have identical text. This expression "Identical Recommendations | International Standards" is the title of clause 2.1 in common texts according to the presentation style specified in Appendix II.

1.5.3.4 Paired Recommendations | International Standards (or "twin text"): These are Recommendations and International Standards which were developed in close collaboration between ITU-T and ISO/IEC, and whose texts are technically aligned but not identical. The expression "Paired Recommendations | International Standards" is the title of clause 2.2 in common texts according to the presentation style specified in Appendix II.

1.5.3.5 Working Level Group: A generic term to refer to a group of individuals in a JTC 1 SC responsible for progressing work on a specific project or a group of individuals in an ITU-T SG responsible for progressing work on a specific Question (see clause 7).

1.6 Abbreviations

For the purposes of this Guide, the following abbreviations apply.

1.6.1 ITU-T abbreviations

AAP Alternative Approval Process

CCITT International Telegraph and Telephone Consultative Committee (replaced by ITU-T in 1993)

ITU International Telecommunication Union

ITU-T International Telecommunication Union – Telecommunication Standardization Sector

SG Study Group

TAP Traditional Approval Process

TSAG Telecommunication Standardization Advisory Group

TSB Telecommunication Standardization Bureau

WP Working Party

WTSA World Telecommunication Standardization Assembly

WTSC World Telecommunication Standardization Conference (replaced by WTSA in 2000)

1.6.2 ISO/IEC abbreviations

AMD Amendment

CD Committee Draft

COR Technical Corrigendum

DAM Draft Amendment

DCOR Draft Technical Corrigendum

DIS Draft International Standard

DTR Draft Technical Report

FDAM Final Draft Amendment

FDIS Final Draft International Standard

IEC International Electrotechnical Commission

IS International Standard

ISO International Organization for Standardization

ISP International Standardized Profile

ITTF Information Technology Task Force

JTC 1 Joint Technical Committee 1

NP New Work Item Proposal

PDAM Proposed Draft Amendment

PDTR Proposed Draft Technical Report

SC Subcommittee

SWG Special Working Group

TR Technical Report

TS Technical Specification

WD Working Draft

WG Working Group

1.6.3 ITU-T and JTC 1 cooperation abbreviations

CT Collaborative Team

2 Organizational structures

ITU-T and JTC 1 have similar organizational structures for carrying out technical work. The major ITU-T organizational unit is the Study Group (SG) which is comparable to a Subcommittee (SC) within JTC 1. Table 1 lists the ten ITU-T Study Groups as of 30 April 2009 (an up-to-date list may be found on the ITU web site at http://www.itu.int). Table 2 lists the eighteen Subcommittees of JTC 1 as of October 2009 (an up-to-date list may be found on the JTC 1 web site at http://www.jtc1.org).

Table 1 – List of ITU-T Study Groups

Designation	Title
SG 2	Operational aspects of service provision and telecommunication management
SG 3	Tariff and accounting principles including related telecommunication economic and policy issues
SG 5	Environment and climate change
SG 9	Television and sound transmission and integrated broadband cable networks
SG 11	Signalling requirements, protocols and test specifications
SG 12	Performance, QoS and QoE
SG 13	Future networks including mobile and NGN
SG 15	Optical transport networks and access network infrastructures
SG 16	Multimedia coding, systems and applications
SG 17	Security
NOTE 1 – A brief description of the general work areas of the Study Groups is contained in WTSA Resolution 2. NOTE 2 – In addition to the Study Groups, the Telecommunication Standardization Advisory Group (TSAG) is also part of the ITU-T.	

Table 2 – List of ISO/IEC JTC 1 Subcommittees

Designation	Title
SC 2	Coded character sets
SC 6	Telecommunications and information exchange between systems
SC 7	Software and systems engineering
SC 17	Cards and personal identification
SC 22	Programming languages, their environments and system software interfaces
SC 23	Digitally recorded media for information interchange and storage
SC 24	Computer graphics, image processing and environmental data representation
SC 25	Interconnection of information technology equipment
SC 27	IT security techniques
SC 28	Office equipment
SC 29	Coding of audio, picture, multimedia and hypermedia information
SC 31	Automatic identification and data capture techniques
SC 32	Data management and interchange
SC 34	Document description and processing languages
SC 35	User interfaces
SC 36	Information technology for learning, education and training
SC 37	Biometrics
SC 38	Distributed application platforms and services (DAPS)

NOTE – Also directly reporting to JTC 1 are:
- Special Working Group on Accessibility;
- Special Working Group on Archival and Retrieval Mechanisms;
- Special Working Group on Directives;
- Special Working Group on Planning;
- Special Working Group on Smart Grid;
- WG 6 on Corporate governance of IT;
- WG 7 on Sensor Networks.

At the next lower level, ITU-T Study Groups typically divide their work into a number of Working Parties (WPs), and JTC 1 Subcommittees divide their work into Working Groups (WGs). Both organizations appoint Rapporteurs and Editors to facilitate the carrying out of detailed technical work.

Figure 1 illustrates the ITU-T structure as of April 2009 and Figure 2 illustrates the JTC 1 structure as of October 2009.

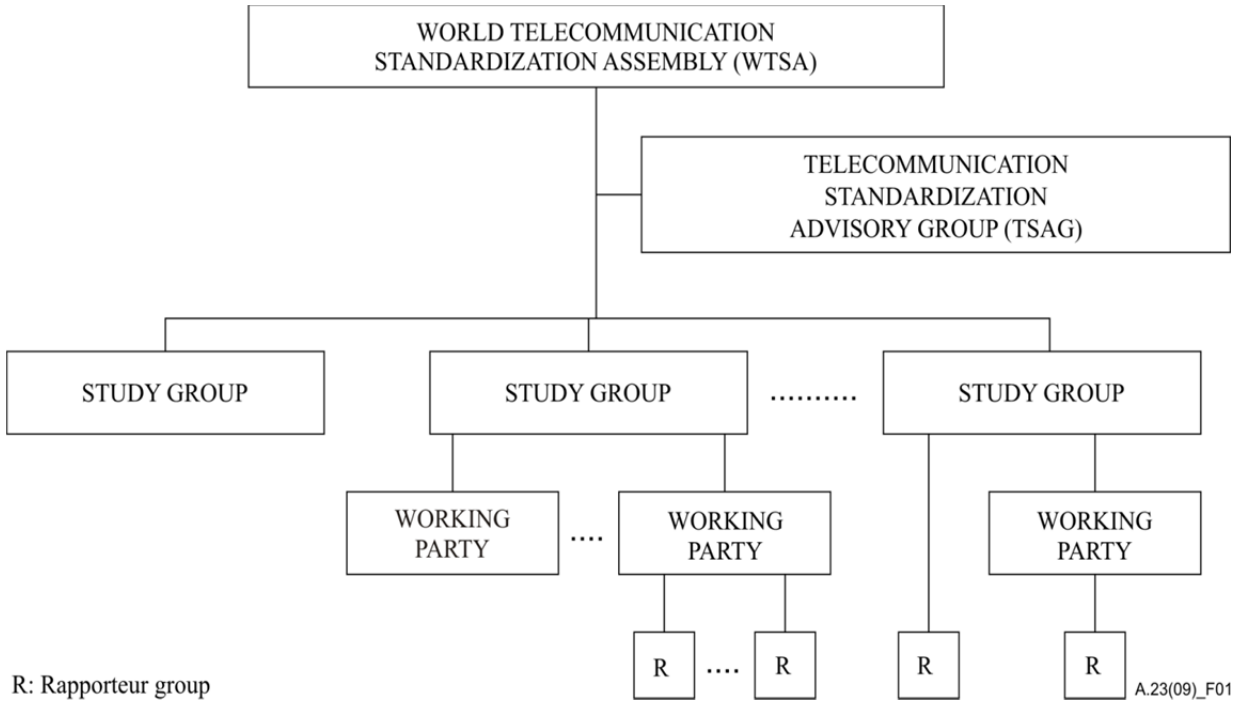


Figure 1 – Organizational structure of ITU-T

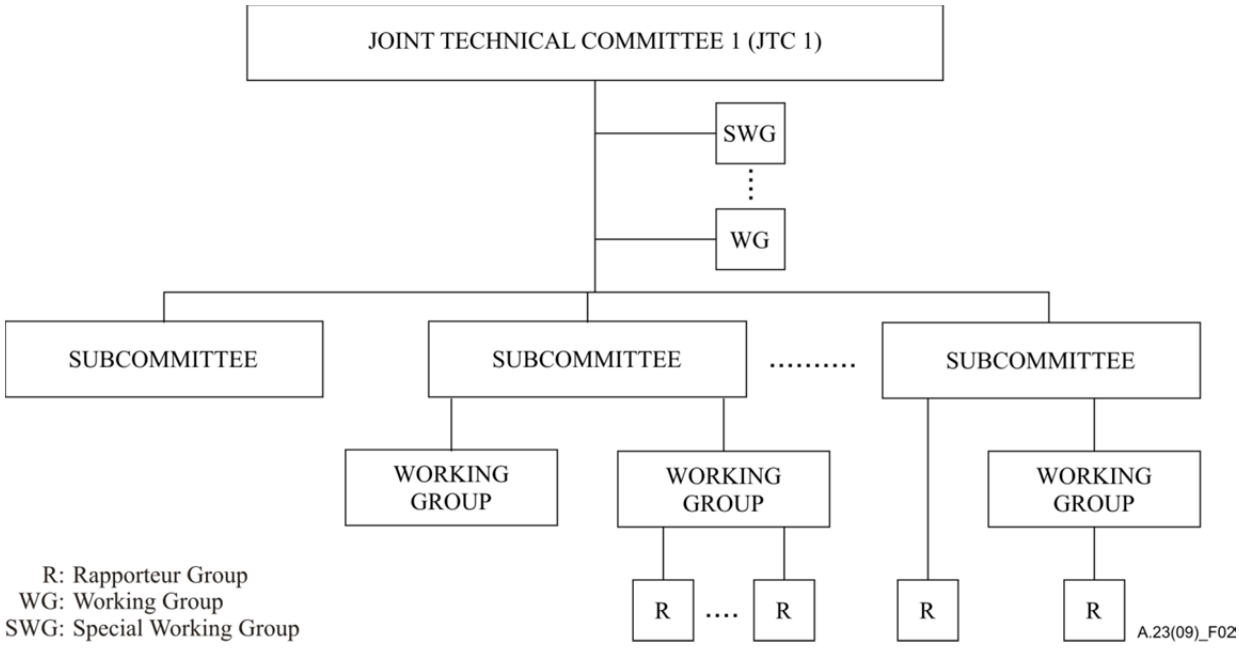


Figure 2 – Organizational structure of JTC 1

3 Organization procedures

The procedures for ITU-T and ISO/IEC JTC 1 cooperation make use of the regular procedures of each organization with the addition of some special procedures that achieve needed synchronization. Therefore, the following background material on the procedures of the two organizations forms the basis upon which the cooperative procedures are built. Of particular importance are the approval processes used by the ITU-T and JTC 1.

3.1 ITU-T procedures

The procedures for the ITU-T are specified in the WTSA Resolutions and in the A-series Recommendations. Highlights of this information are summarized below.

The WTSA meets once every four years. The period between two consecutive Assemblies is called a Study Period (e.g., 2009-2012). Among the principal actions taken by the WTSA are:

a) Approval of any Recommendations submitted by the Study Groups;

b) Organization of the Study Groups for the next Study Period;

c) Allocation of Questions (work program) to Study Groups;

d) Appointment of the chairman and vice-chairmen of each Study Group; and

e) Revision of the working methods of the ITU-T.

Between Assemblies, TSAG has been delegated authority to make any necessary changes in Study Groups, work programs and work methods.

The Study Groups are responsible for their own internal organization, for example:

a) Establishment of Working Parties and the appointment of their chairmen;

b) Allocation of Questions to each Working Party; and

c) Appointment of Rapporteurs.

The Working Parties are responsible for the Questions assigned to them. They may appoint Rapporteurs to facilitate carrying out the technical work. When texts are being developed for a Recommendation, it is frequently helpful to appoint an Editor.

At the start of a new Study Period, the Questions are the ones allocated to the Study Group by the WTSA. During the Study Period, new proposed Questions can be drafted and approved.

At the end of the Study Period, each Study Group prepares a set of new or revised Questions for the work they believe should be continued or undertaken during the next four year Study Period. These draft Questions are submitted to the WTSA for approval.

Procedures are in place that permit important work to continue during the period between the final meeting of a Study Group in one Study Period and the first meeting of the Study Group in the next Study Period.

3.1.1 Traditional Approval Process (TAP)

The Traditional Approval Process is used for Recommendations that may have regulatory or policy implications. Details of this procedure are contained in WTSA Resolution 1 and summarized in Figure 3a. It is expected that many Recommendations developed in cooperation with JTC 1 will not have regulatory or policy implications, and will therefore not fall under this procedure.

During the Study Period, work on a draft of a new Recommendation or on a revision of an existing Recommendation may become mature and stable. The Study Group or Working Party may determine that the text is sufficiently mature and that the approval process should be initiated. Any final editing is completed and the Study Group Chairman requests the Director of the TSB to initiate a consultation period, which lasts at least 3 months. The results of the consultation of Member States are conveyed to the next meeting of the Study Group.

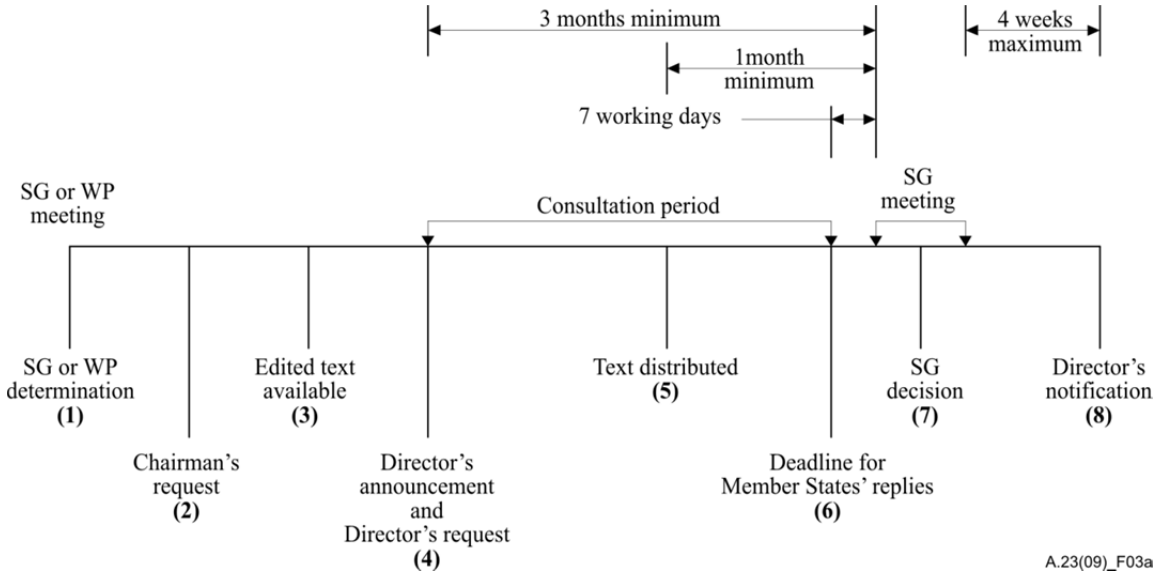
At the Study Group meeting, all comments are considered and the final text of the Recommendation is produced. At the designated time during the Study Group meeting, the Chairman will seek approval of the Recommendation. The decision at the Study Group meeting must be unopposed. If one Member State says "NO", the approval process is suspended. One or more Member States at the Study Group meeting may request more time to consider their position. If this is the case, these Member States have four weeks from the end of the meeting to make their position known. Texts which are mature at the end of the Study Period may be approved using this procedure or may be sent to the WTSA for approval.

3.1.2 Alternative Approval Process (AAP)

The Alternative Approval Process is used for Recommendations that do not have regulatory or policy implications. Details of this procedure are contained in Recommendation ITU-T A.8 and summarized in Figure 3b. A major characteristic of the AAP is that approval can be obtained without having to wait until the next Study Group meeting. It is expected that essentially all of the Recommendations developed in cooperation with JTC 1 will fall under this procedure.

During the Study Period, work on a draft of a new Recommendation or on a revision of an existing Recommendation may become mature and stable. The Study Group or Working Party may consent that the text is sufficiently mature and that the approval process should be initiated. Any final editing of the text is completed and the Study Group Chairman requests the Director of the TSB to initiate a four-week Last Call period. Member States, Sector Members and Associates review the text and may submit comments. If there are no comments (other than simple editorial corrections), the Recommendation is approved. If there are comments of substance, they are addressed and depending on time schedules the revised text will be posted for a three-week Additional Review or sent to the next meeting of the Study Group. If the Additional Review is held, the Recommendation is approved if there are no comments (other than simple editorial corrections). Otherwise, the text is sent to the next Study Group meeting. At the Study Group meeting, all comments are considered and the final text of the Recommendation is produced. At the designated time during the Study Group meeting, the Chairman will seek approval of the Recommendation. The decision at the Study Group meeting must not be opposed by more than one Member State present at the meeting. If two or more Member States say "NO", the approval process is suspended. One or more Member States at the Study

Group meeting may request more time to consider their position. If this is the case, these Member States have four weeks from the end of the meeting to make their position known. Texts which are mature at the end of the Study Period may be approved using the above procedure or may be sent to the World Telecommunication Standardization Assembly for approval.



NOTES

(1) SG or WP DETERMINATION: The Study Group or Working Party determines that work on a draft Recommendation is sufficiently mature to begin the traditional approval process.

(2) CHAIRMAN'S REQUEST: The Study Group Chairman requests that the Director announce the intention to seek approval.

(3) EDITED TEXT AVAILABLE: Text of the draft Recommendation is provided to the TSB in final edited form.

(4) DIRECTOR'S ANNOUNCEMENT and DIRECTOR'S REQUEST: The Director announces to all Member States and Sector Members the intention to seek approval of the draft Recommendation at the next Study Group meeting. The Director requests Member States to inform the Director whether they approve or do not approve the proposal to assign authority to the Study Group to consider approval.

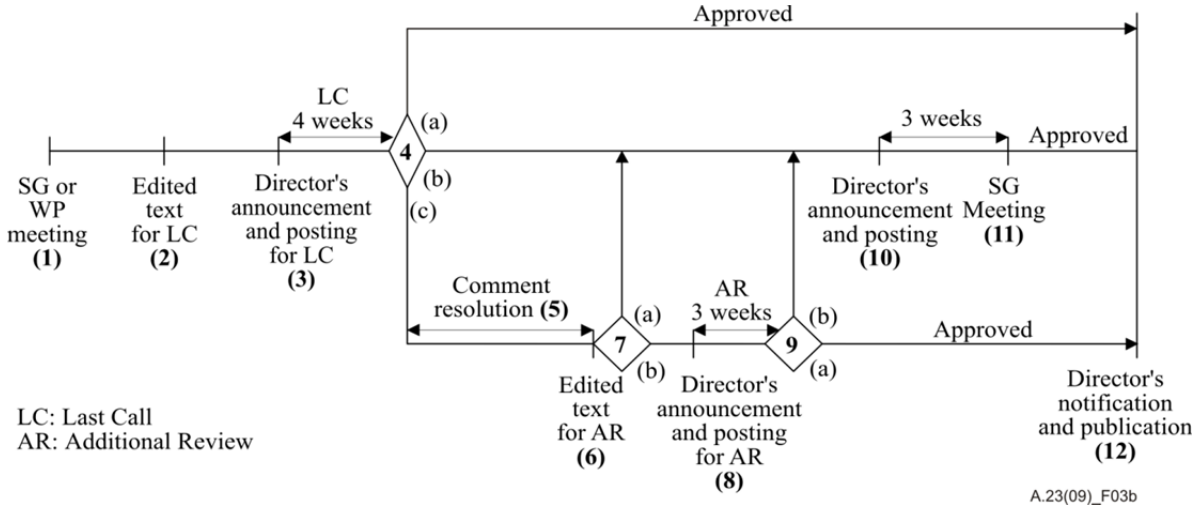
(5) TEST DISTRIBUTED: Text of the draft Recommendation is distributed at least one month before the announced meeting.

(6) DEADLINE FOR MEMBER STATES' REPLIES: If 70% of replies received during the consultation period indicate approval to assign authority, the Study Group can proceed to consider approval.

(7) STUDY GROUP DECISION: After debate and agreement on any final modification to the text, the Study Group reaches unopposed agreement to approve the draft Recommendation. A delegation can register a degree of reservation, can request more time to consider its position (4 weeks maximum) or can abstain from the decision. Otherwise the draft Recommendation is not approved; additional work can be done and the process repeats.

(8) DIRECTOR'S NOTIFICATION: The Director notifies whether the draft Recommendation is approved or not.

Figure 3a – ITU-T Traditional Approval Process (TAP)



NOTES

(1) SG or WP CONSENT: The Study Group or Working Party concludes that the work on a draft Recommendation is sufficiently mature to begin the alternative approval process.

(2) EDITED TEXT AVAILABLE: Text of the draft Recommendation is provided to the TSB in final edited form and the Study Group Chairman requests the Director to initiate the Last Call.

(3) DIRECTOR'S LAST CALL ANNOUNCEMENT AND POSTING: The Director announces the beginning of the Last Call to all Member States, Sector Members and Associates with reference to the text.

(4) LAST CALL JUDGEMENT: The Study Group Chairman, in consultation with TSB, makes the judgement whether:

a) no comments other than those indicating typographical errors have been received. In this case, the draft Recommendation is approved;

b) a planned Study Group meeting is sufficiently close to consider the comments received; or

c) to save time and/or because of the nature and maturity of the work, comment resolution should be initiated.

(5) COMMENT RESOLUTION: The Study Group Chairman, with assistance from TSB and experts, including electronic correspondence and Rapporteur and Working Group meetings, where appropriate, addresses the comments and prepares a new edited text.

(6) EDITED TEXT AVAILABLE: The revised text is provided to TSB.

(7) NEXT STEP JUDGEMENT: The Study Group Chairman, in consultation with TSB, makes the judgement whether:

a) a planned Study Group meeting is sufficiently close to consider the draft Recommendation for approval; or

b) to save time and/or because of the nature and maturity of the work an Additional Review should be initiated.

(8) DIRECTOR'S ADDITIONAL REVIEW ANNOUNCEMENT AND POSTING: The Director announces the beginning of the Additional Review to all Member States and Sector Members with reference to the text.

(9) ADDITIONAL REVIEW JUDGEMENT: The Study Group Chairman, in consultation with TSB, makes the judgement whether:

a) no comments other than those indicating typographical errors have been received. In this case, the draft Recommendation is approved; or

b) comments other than those indicating typographical errors have been received. In this case, the process proceeds to the Study Group meeting.

(10) DIRECTOR'S STUDY GROUP ANNOUNCEMENT AND POSTING: The Director announces that the next Study Group meeting will consider the draft Recommendation for approval.

(11) STUDY GROUP DECISION: After debate and agreement on any final modification of the text, if a Member State believes there might be regulatory or policy implications, then the TAP process is followed (see Figure 3a). Otherwise, if the Study Group reaches agreement (i.e., not opposed by more than one Member State present at the meeting), the draft Recommendation is approved. A delegation can register a degree of reservation, can request more time to consider its position (4 weeks maximum) or can abstain from the decision. Otherwise the draft Recommendation is not approved; additional work can be done and the process repeats.

(12) DIRECTOR'S NOTIFICATION: The Director notifies whether the draft Recommendation is approved or not.

Figure 3b – ITU-T Alternative Approval Process (AAP)

3.2 JTC 1 procedures

The procedures for the technical work of ISO/IEC JTC 1 are specified in the JTC 1 Supplement to the ISO/IEC Directives. These procedures employ a number of discrete stages, most involving a ballot process of formal voting by National Bodies. The JTC 1 standards development stages 0 through 6 are given in Table 3 for each of the JTC 1 outputs. Highlights are summarized below and the final stages are illustrated in Figure 3c.

Table 3 – JTC 1 Standards Development Stages

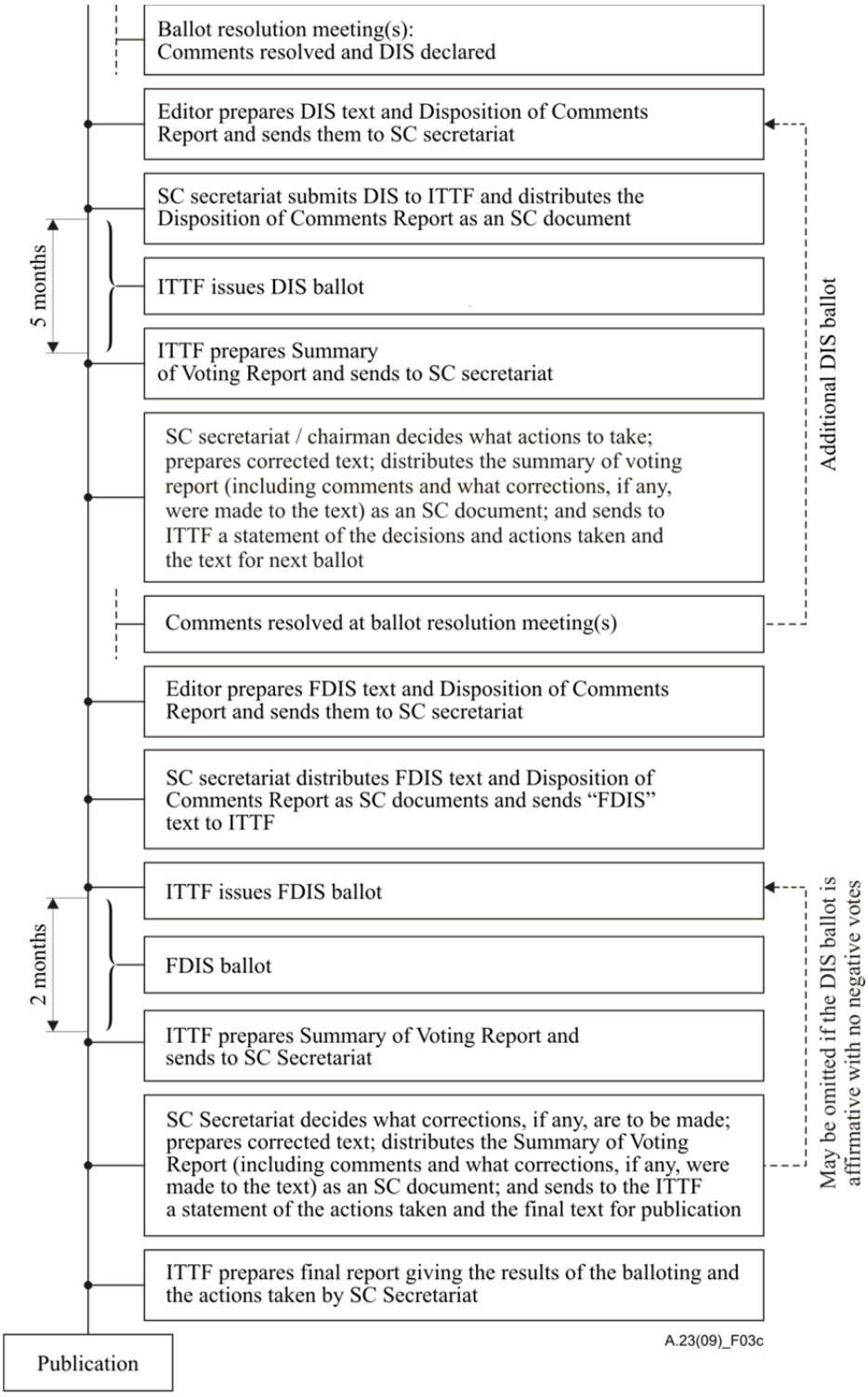
Stage	Standard	Amendment	Fast Track	Technical Report	Technical Corrigendum
Stage 0 – optional Preliminary stage	Preliminary work item				
Stage 1 – Proposal stage	NP	NP		NP	
Stage 2 – Preparatory stage	WD	WD		WD	Defect report
Stage 3 – Committee stage	CD	PDAM		PDTR	DCOR
Stage 4 – Enquiry stage	DIS	DAM	DIS	DTR	
Stage 5 – Approval stage	FDIS	FDAM	FDIS		
Stage 6 – Publication stage	IS	AMD	IS	TR	COR

A proposal for a new work item can be initiated by a JTC 1 National Body, an SC, or a Category A Liaison. A standard format exists for a new work item proposal (NP). An NP is circulated for a three-month letter ballot at the JTC 1 level or, if initiated by a Subcommittee, a letter ballot at the Subcommittee level and a simultaneous comment period at the JTC 1 level. If approved, the NP is added to the JTC 1 program of work and assigned to an SC for development.

Working Drafts are texts being developed for an International Standard (IS), an amendment to an International Standard, a Technical Specification (TS) or a Technical Report (TR). When the work reaches a state of maturity as determined by the SC[2], it is registered as a Committee Draft (CD), a Proposed Draft Amendment (PDAM), or a Proposed Draft Technical Report (PDTR). It is circulated for letter ballot at the SC level. The ballot period is normally three months but can be extended up to six months.

The results of the ballot, including all comments, are distributed by the SC secretariat in a Summary of Voting document. All comments must be addressed. If the comments are straightforward, they may be addressed by the editor. In more complex situations, an editing meeting is held to resolve the comments. The editor then prepares the text and a Disposition of Comments report and forwards these to the SC secretariat. If the changes are substantive, a second CD, PDAM, or PDTR ballot is required. The same procedure described above is used for the ballot and to handle the ballot results.

[2] This determination is done either by adoption of a Resolution at an SC meeting or by a three-month registration ballot at the SC level.



NOTE – The stage illustrated as DIS equally applies to DAM; similarly, the stage illustrated as FDIS equally applies to FDAM or DTR.

Figure 3c – Final stages of the JTC 1 approval process

When the Subcommittee considers the text to be stable and declares that the next ballot is intended to be the enquiry stage (DIS or DAM ballot), the text is registered as a Draft International Standard (DIS) or Draft Amendment (DAM). DISs and DAMs are circulated for a five-month letter ballot by ISO and IEC members. DTRs are circulated for a three-month (can be extended to 6 months) letter ballot at the JTC 1 level. The results of the ballot, including all comments, are communicated to the SC secretariat who decides, together with the SC Chairman and the Editing group to either (if the ballot was successful) register the standard as FDIS (respectively as FDAM or DTR) or (if successful and no negative comments were received) proceed directly to publication or (if not approved) that a second DIS or DAM ballot is required.

The same procedure as described above is used to process the ballot comments. When the text has been finalized, the editor sends it, along with the Disposition of Comments report, to the SC secretariat. The SC secretariat sends the text of the FDIS, or second DIS if so decided (or FDAM or second DAM if so decided) to the ITTF. Unless a second DIS (or a second DAM) is required the ITTF circulates the final text for a two-month letter ballot to National Bodies of ISO and IEC members. This is a "Yes/No" ballot. If the ballot is successful, the text will be promptly published (only obvious editorial corrections will be made in the publication). If unsuccessful, the text may be resubmitted as a CD, DIS or FDIS (respectively PDAM, DAM or FDAM), or published as Technical Specification. For Technical Reports, no additional balloting is required and the SC secretariat sends the text to the ITTF for publication.

Should the enquiry draft be successful without negative votes, the text may proceed directly to publication.

Defects discovered after publication are handled by a formal defect report process. A special group of nominated experts reviews the material along with any proposed solution. The result of this process is a three month DCOR letter ballot at the SC level. Such defects are normally corrected by the publication of a Technical Corrigendum.

All along the way, the WG and SC oversee the process. In many cases authorization to pass to the next step are contained in Resolutions formally approved at SC meetings.

4 Modes of cooperation

4.1 Introduction

Cooperation between the ITU-T and ISO/IEC JTC 1 spans many levels. The most basic, of course, is the recognition of the areas of work of the respective organizations.

The ITU-T, as one of the three Sectors of the International Telecommunication Union (ITU), has responsibilities for "studying technical, operating and tariff questions and adopting recommendations on them with a view to standardizing telecommunications on a worldwide basis."[3] JTC 1, as a joint technical committee of ISO and IEC, has a scope of "standardization in the field of information technology."[4]

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[3] Constitution of the International Telecommunication Union, 2006.

[4] JTC 1 Business Plan.

By far, the vast majority of the work program of the ITU-T and the work program of JTC 1 is carried out separately with little, if any, need for cooperation between the organizations.

For work programs where cooperation is desirable, appropriate arrangements exist between ISO, IEC and ITU-T to facilitate this cooperation. ISO and IEC each have a membership in the ITU-T as International Organizations. The ITU-T participates in the work of JTC 1 as a Category A Liaison organization. Several modes of cooperation have been defined as described below.

4.2 Liaison mode

Where there is interest in both organizations in an area of work but the prime responsibility falls to one of the two organizations, the liaison approach to cooperation is well suited. In this situation, the work is carried out in one organization and the other organization participates, as appropriate, using its liaison status. The result is published by one organization and is referenced, as needed, by the other organization.

In some situations of common interest, it may be appropriate to reach an agreement that would allocate the standardization of a particular area of work to one organization. One example where this has been done successfully is the interface between a data terminal and a modem. The agreement reached is that the ITU-T will standardize the electrical characteristics and functions of the interchange circuits and JTC 1 will standardize the interface connector and pin assignments. The necessary cooperation is achieved through liaison.

Clause 6 details the liaison procedures.

4.3 Collaboration mode

Where, for a given area of work, each organization plans to develop a Recommendation or International Standard, it may be best to mutually build consensus through collaboration. In this situation, meetings are held at the working level to develop common text, which is then approved using the normal approval process of each organization. The result is published as a Recommendation and an International Standard (or as a Supplement and a Technical Report).

Collaboration can be carried out in one of two ways: by means of Collaborative Interchange or by means of a Collaborative Team.

Collaboration by means of Collaborative Interchange is suited for situations where the work to be carried out is straight-forward and relatively non-controversial, and where there is sufficient common participation in the meetings of the two organizations to make the interchange highly effective. The work on resolving issues and developing common text is continually progressed in the successive meetings of the two groups. Synchronization of the normal approval processes of both the ITU-T and JTC 1 is used leading to publication.

Clause 7 details the collaboration procedures when Collaborative Interchange is used.

Collaboration by means of a Collaborative Team is well suited for situations where extended dialog is necessary to develop solutions and reach consensus. In this situation, all interested parties participate together in a Collaborative Team to mutually progress the work, resolve issues, and develop common text. Synchronization of the normal approval processes of both the ITU-T and JTC 1 is used leading to publication.

Clause 8 details the collaboration procedures when a Collaborative Team is established.

When appropriate, the collaboration mode can also be used to produce twin text.

Collaboration at the international level will be greatly facilitated by effective coordination between ITU-T and JTC 1 delegates at the national level. The true basis of cooperation is dependent upon open sharing of information and the good will of all parties involved.

4.4 Determining the mode of cooperation

Figure 4 summarizes for a specific item of work the various relationships that could exist between the ITU-T and JTC 1.

The vast majority of the work programs of the ITU-T and JTC 1 are significantly separate so that they can be successfully carried out with little, if any, intercommunication.

Agreement for cooperation must be mutually recognized to be successful. Therefore, operation in the liaison mode or in one of the two collaboration modes for a given area of work must be an agreed decision of both organizations. This agreement is to be confirmed at the SG/SC level.

To maximize the effectiveness of resources and minimize duplication of effort, SGs and SCs should identify areas for collaborative work as early as possible in the development process. Normally as part of the development of a new work item proposal in JTC 1 and the development of a new or revised Question in the ITU-T, consideration is given to the need for interactions with other standards groups. If enough information is available at this stage, then, if appropriate, either the liaison mode or one of the collaboration modes can be proposed and agreement of the other organization sought.

It is possible for the mode of cooperation to change as the work progresses. For example, work could be initiated in one organization and, as a result of liaison, it could become recognized as integrally important to the other organization. At this point, agreement could be reached to advance all future work in a collaborative mode.

To facilitate overall cooperation, each Study Group should maintain a listing that identifies the Questions that are being studied in cooperation with JTC 1 and, for each Question, denotes both the mode of cooperation and the relevant JTC 1 project(s). Similarly, each JTC 1 SC should maintain a listing that identifies the projects that are being studied in cooperation with the ITU-T and, for each project, denotes both the mode of cooperation and the relevant ITU-T Question(s).

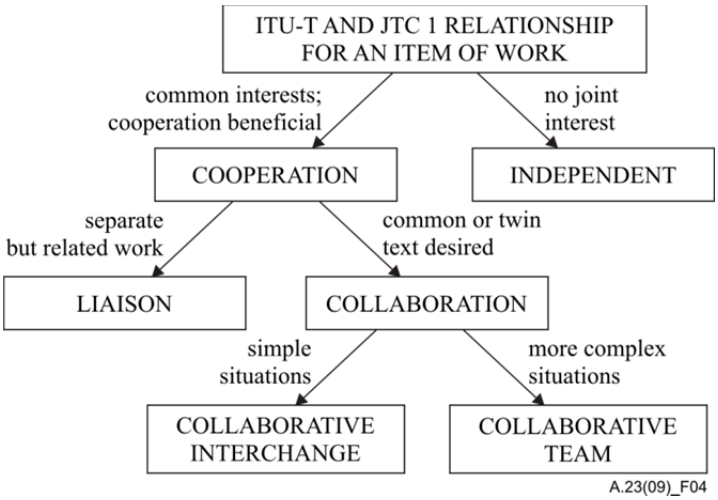

Figure 4 – Possible working relationships between ITU-T and JTC 1

4.5 Termination of collaboration and/or common text publication

As stated in 4.4, a collaborative relationship for a given area of work requires the agreement of both the SC and the SG to be initiated. It continues as long as both organizations feel collaboration is beneficial. In the unusual event that either organization feels that collaboration for a given area of work should be terminated, this situation shall be immediately discussed with the other organization. If satisfactory resolution cannot be obtained, then collaboration for the given area of work can be terminated at any time by either the SC or the SG. If termination should occur, both organizations can make use of the prior collaborative work.

Similarly, if an unusual circumstance should arise to indicate that publication of a collaborative Recommendation | International Standard in common text format is no longer desirable (e.g., because of substantial differences in content), this situation should be immediately discussed with the other organization. If after the consultation either organization determines that common text publication is not appropriate, then each organization can publish separately using its own publication format.

5 Planning and scheduling

Both the ITU-T and JTC 1 have their own multi-year planning activities. Interactions between these planning activities will facilitate effective ITU-T/JTC 1 cooperation.

5.1 Scheduling of SG/WP and SC/WG meetings

Schedules for ITU-T Study Group and Working Party meetings are established one to two years ahead and are quite difficult to change. Meetings of JTC 1 Subcommittees and Working Groups are typically scheduled two years in advance and are also quite difficult to change.

Where collaborative arrangements have been established, the ITU-T SG secretariats and the JTC 1 SC secretariats are responsible for keeping each other informed of meeting schedules. In particular, the SG and SC secretariats should consult each other before firming up their respective SG/WP and SC/WG meeting dates to avoid conflicts that would adversely affect cooperation.

5.2 Work program coordination

The ITU-T and JTC 1 both have requirements for formulating a work plan, including milestones, for each specific area of work. In JTC 1, the key milestones are dates for Working Draft, CD (or PDAM or PDTR) ballot, DIS (or DAM) ballot, FDIS (or FDAM or DTR) ballot, and publication. In the ITU-T, the milestones include dates for SG or WP initiation of the approval process, availability of text for the consultation period (TAP) or Last Call (AAP), and Study Group approval of the Recommendation.

The efficiency of the collaborative process depends in large measure on the synchronization of the approval processes of both organizations. Early planning and establishment of milestones, taking into account key dates in each organization, is essential to achieving synchronization and avoiding added delay. For example, the dates for the DIS (or DAM) and FDIS (or FDAM or DTR) ballots need to take into account SC/WG meeting dates (for any necessary enabling Resolutions) and the schedule of the ITU-T SG/WP meeting where determination (TAP) or consent (AAP) is contemplated.

Figures 5a and 5b show the final phases of the overall synchronization plan leading to common text publication. In these figures, the stage illustrated as DIS equally applies to DAM; similarly, the stage illustrated as FDIS equally applies to FDAM or DTR.

The Fast Track process may also be used for JTC 1 approval where the fundamental work is done in the ITU-T (e.g., subjects for which JTC 1 has assigned maintenance responsibility to the ITU-T). It should however be noted that only full text Standards, Technical Reports, ITU-T Recommendations and Supplements may be fast-tracked, not Amendments.

5.3 Synchronized maintenance of cooperative work

Approved collaborative Recommendations | International Standards need to be reviewed and maintained over time. This will require continuing collaborative effort.

With the strong interdependence among the large number of information technology Recommendations and International Standards, it is recommended that maintenance updates be done in the same time-frame. This will significantly help to ensure that the work on information technology evolves as a cohesive whole. The review and any necessary updates should be done every four to five years.

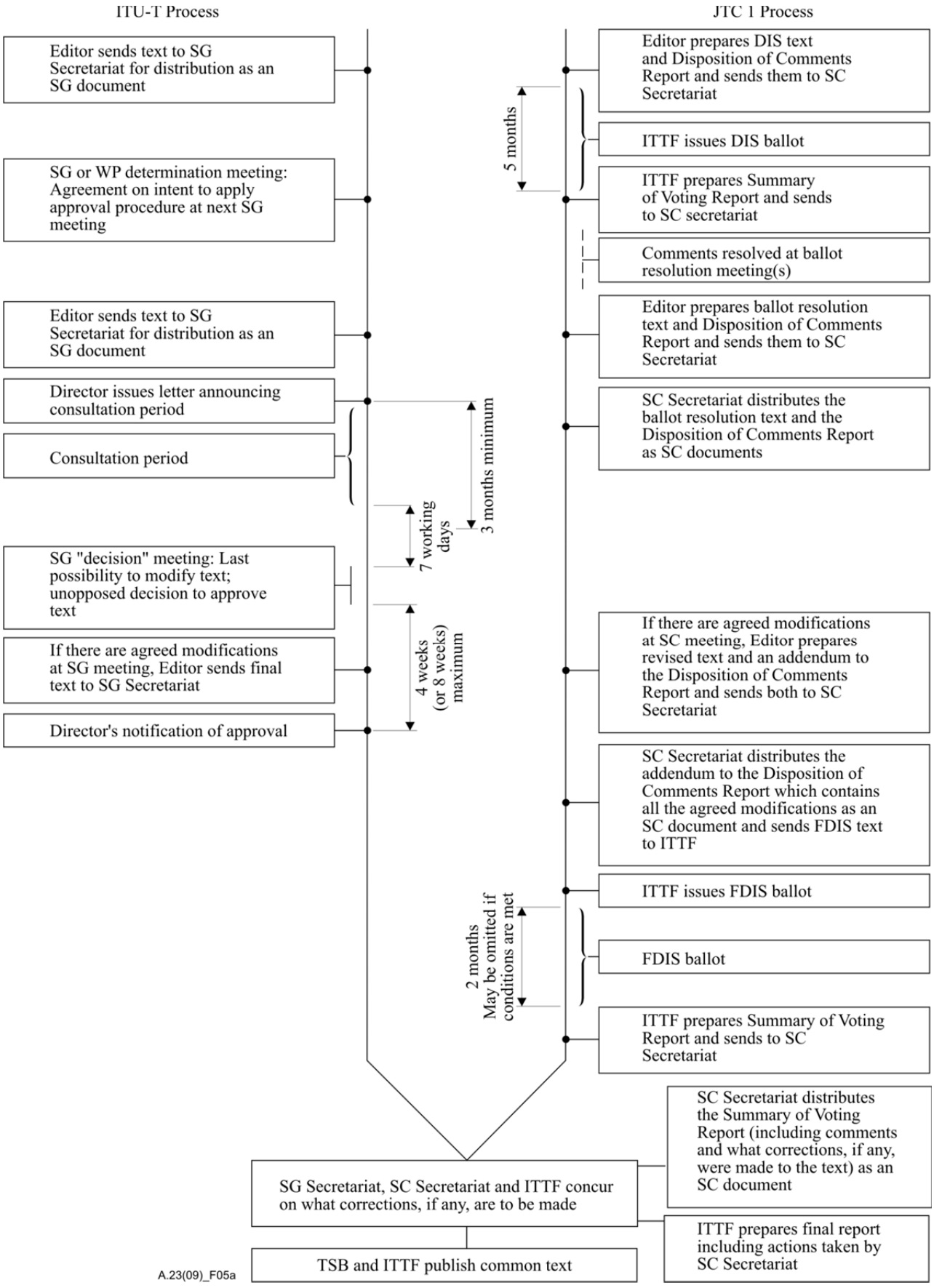

Figure 5a – Final stages of collaborative approval process when TAP is used

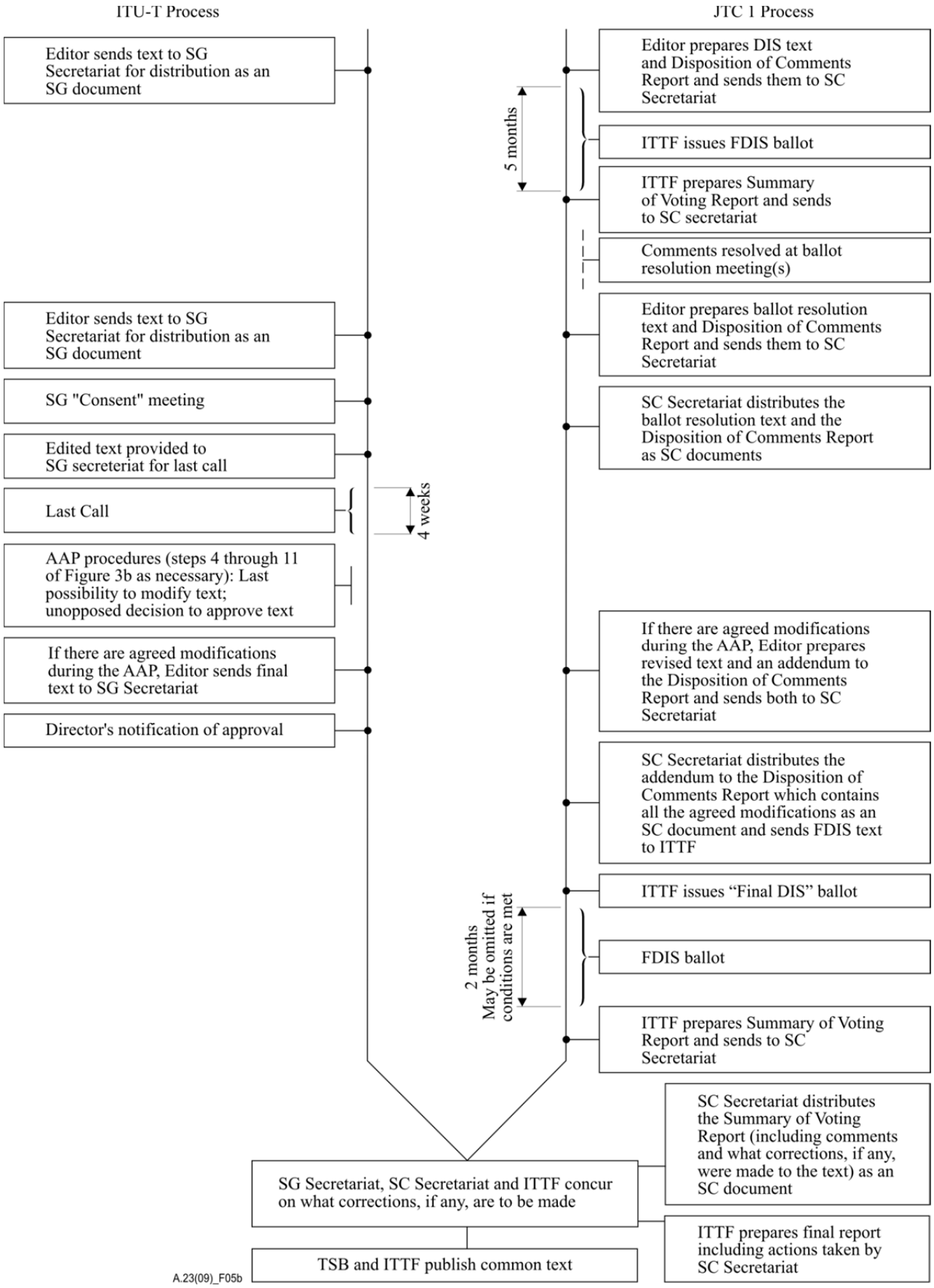

Figure 5b – Final stages of collaborative approval process when AAP is used

6 Liaison procedures

6.1 General

Liaison between organizations is an important means of communication that typically involves one or more of the following:

a) Interchange of general information of mutual interest;

b) Coordination of related work that is partitioned between the two groups; and

c) Comments on work that is the responsibility of the other group.

6.2 Liaison representation

Regardless of the mode of cooperation for a particular subject, all interactions at the Study Group/Subcommittee (SG/SC) level and at the Working Party/Working Group (WP/WG) level are conducted using the liaison procedures. In particular, this applies to participation in each other's meetings and submission of contributions. For example, for an individual to represent JTC 1, an SC or a WG at an ITU-T Study Group or Working Party meeting, a letter from JTC 1, the SC, or the WG secretariat is necessary authorizing such representation. Likewise, for an individual to represent an ITU-T Study Group or Working Party at a JTC 1, SC or WG meeting, a letter from the ITU-T SG secretariat is necessary authorizing such representation.

Communication between Rapporteur Groups, between Collaborative Teams, and between a Rapporteur Group and a Collaborative Team is also done by liaison. Individuals attending a Rapporteur meeting in the ITU-T as an ISO/IEC liaison delegate and individuals attending a Rapporteur meeting in JTC 1 as an ITU-T liaison delegate should be officially approved by the respective SG/WP or SC/WG and confirmed with a letter of authorization from the secretariat.

Liaisons are most effective when they are prepared in written form (see 6.3 below) and when a knowledgeable liaison representative attends the meeting to present it and participate in any ensuing dialog. Individuals performing liaison responsibilities should have first-hand knowledge of the work being represented and should be familiar with the procedures of both organizations.

In most cases, liaison between two groups should be both ways. The same or different individuals can be used for the two directions of liaison.

6.3 Liaison contributions

Liaison contributions at the SG/SC level or at the WP/WG level are transmitted by the originating secretariat to the destination secretariat upon appropriate authorization. In exceptional circumstances due to close timing between meetings, liaison contributions may be hand carried by an authorized representative but must be followed by an official transmittal by the originating secretariat.

Liaison contributions at the Rapporteur level (i.e., those without a higher level of approval) are handled between the respective Rapporteurs. Each Rapporteur is responsible for ensuring appropriate distribution within their community of experts.

Liaison contributions must list as their source, the highest entity that approved the liaison. For example, if a liaison statement was developed by a Rapporteur group and subsequently approved by a WP and then the SG, the source would be the SG, indicating the highest stage of approval. It would be most helpful if, within the liaison contribution, the particular group that developed the liaison was indicated. The title of the liaison contribution should be descriptive of the subject matter. The liaison contribution should explicitly state its nature; e.g., whether it is for information, for comment, etc.

Liaison contributions to the ITU-T should contain the Question number. Contribution number 1 in each Study Group contains the Questions assigned to the Study Group by the WTSA. Liaison contributions to JTC 1 should contain the project number.

7 Collaboration using Collaborative Interchange

The basic concept of collaboration using Collaborative Interchange is to closely couple the development, consensus building, and ballot/comment resolution efforts of the two working level groups in an efficient and effective manner to produce mutually agreed common text for one or more Recommendations | International Standards. Although the remainder of this section focuses on common text, development of twin text is also possible using Collaborative Interchange, in which case the approval processes do not require exact timing synchronization.

7.1 Collaborative relationship

Upon agreement by the JTC 1 Subcommittee and the ITU-T Study Group that a specific area of work is to be developed collaboratively using Collaborative Interchange, a collaborative relationship is established between the respective working level groups of the two organizations.

The mutually agreed terms of reference for each Collaborative Interchange relationship should include:

– The scope of the effort as it relates to each organization's program of work (ITU-T Question and JTC 1 project). Where possible, it should include identification of the Recommendation(s) and International Standard(s) that are to be developed collaboratively.

– Any start-up provisions to accommodate work in progress.

The working level groups of the two organizations function using the procedures of their respective organizations, but with certain additional procedures, as described below, to facilitate closer collaboration in building consensus and synchronization of approvals leading to publication of common text.

Figure 6 provides a work flow diagram that identifies the various stages of the collaborative process from concept to final publication. Collaboration should also continue for the ongoing maintenance phase (see 7.11 and 7.12).

The terms of reference or mode of collaboration can be changed at any time by mutual agreement of the SG and SC. Procedures for terminating a collaborative relationship are covered in 4.5.

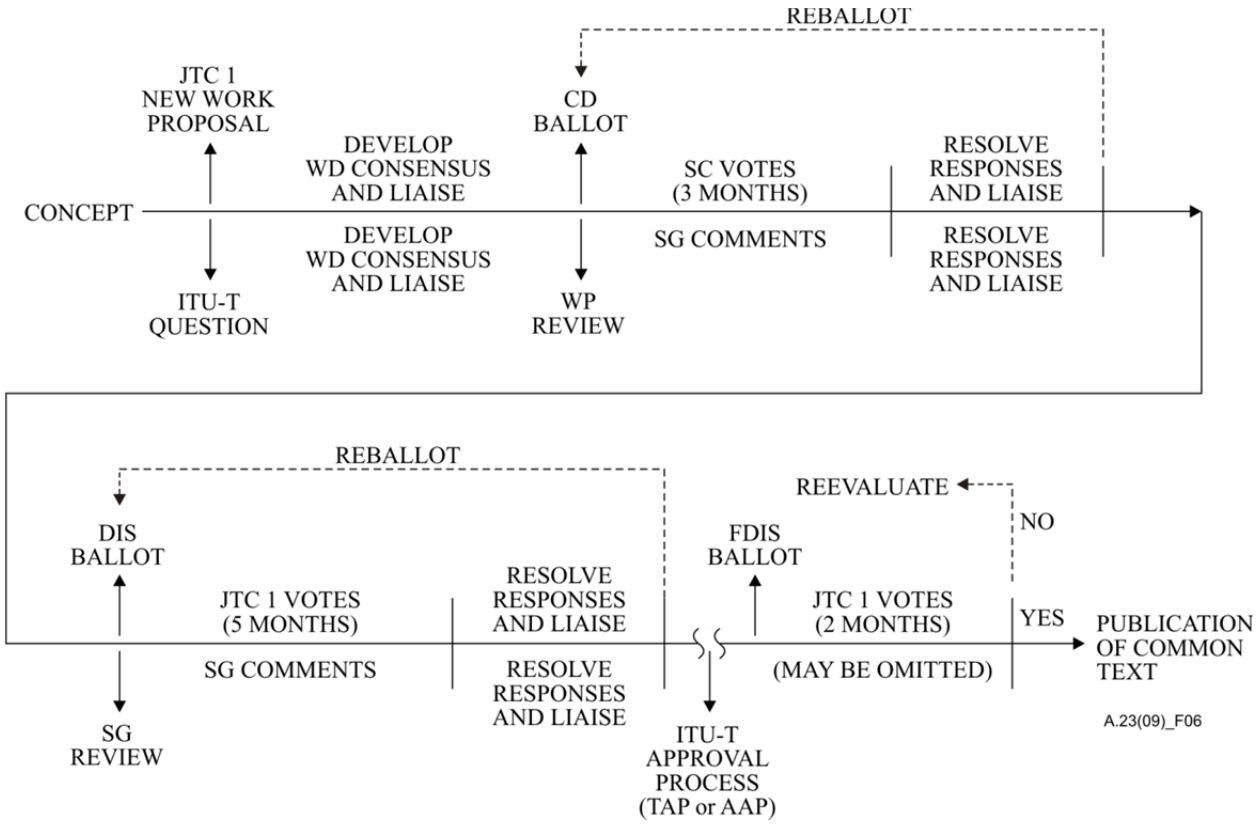

Figure 6 – Work flow diagram when Collaborative Interchange is used

7.2 Participation in working level meetings

Collaboration is facilitated if there is some significant degree of common participation by individuals in the working level meetings of both organizations.

Representation of one organization in a working level meeting of the other organization is achieved by means of liaison (see 6.2). Individuals attending meetings in a liaison capacity should be familiar with the procedures of the organization holding the meeting.

7.3 Scheduling

As the work matures, it is important that careful consideration be given to the scheduling of ballots to take into account the meeting schedule of the JTC 1 SC and WG (e.g., for any necessary resolution authorizing progression to ballot) and the ITU-T SG (e.g., for determination (TAP) or consent (AAP) step of the approval process) so that the necessary synchronization can take place in a timely manner.

7.4 Contributions

Contributions are handled by each working level group according to the normal procedures of their organization. In addition, it is important that the results of analysis of contributions be passed promptly to the other working level group.

7.5 Editor for common text

It is strongly recommended that the two working level groups agree on a single Editor or set of Editors that will maintain the single master collaborative text. The draft text shall be prepared and maintained by the appointed Editor(s) according to the common format criteria agreed by the ISO/IEC and ITU-T secretariats (see Appendix II). The draft master collaborative text will be updated only when agreement to the specific text has been made by both groups.

Each iteration of the draft collaborative text shall be dated. Changes from the previous draft should be highlighted by change marks.

Appointed Editors will be responsible for the text through draft iterations and final submission to the secretariats for publication. The individuals selected for this task should make a commitment to continue the work to completion so that continuity can be maintained throughout the effort.

7.6 Achieving consensus

Close liaison is maintained during the development of draft documents, editing the draft texts, and resolution of ballots and comments to ensure that the views of all concerned are taken into account in building consensus. A synergy should emerge from the interaction of the two working level groups. The conduct of the meetings should foster this spirit of cooperation.

Achieving consensus at each step of the process will be facilitated through cooperation of JTC 1 and ITU-T experts at their national level to provide consistent viewpoints.

In general, the intent is that the degree of consensus and the stability of the agreements will increase at each step of the collaborative process.

In rare cases, it may become apparent during the development of common text that one or more specific technical differences are necessary taking into account the needs of JTC 1 and ITU-T. All proposed differences should be carefully examined to ensure there is a legitimate need. When this is the case, the common text is to include the full technical material needed by each organization with wording that specifically identifies any text that is applicable only to one organization.

7.7 Progress reporting

Each working level group is responsible for providing written reports of its meetings to its parent SG/WP or SC/WG following normal procedures. These reports should summarize the results of the meeting including agreements reached, areas identified for further study, the status of collaborative progress, and projected upcoming milestones (see 5.2).

These reports, or appropriate extracts, should be conveyed to the other working level group using the normal liaison procedure. Meeting reports should contain sufficient information to enable the collaborative work to mutually progress in both organizations as effectively as possible.

7.8 Liaisons

It is important to ensure continuing coherence of work in the Information Technology area. Therefore, maintaining established liaisons with other activities and organizations that have been identified to have an appropriate relationship is essential to the success of the work. Meeting reports and drafts should be distributed and comments invited. Liaison organizations are also encouraged to provide contributions to the work. Liaison contributions and comments are considered additional views to facilitate the work and to identify other considerations.

Liaisons are handled in the normal manner by each organization. However, liaisons of common interest should be shared with the other working level group.

7.9 Synchronized approval process

Each organization retains its individual procedures for approving the result of the collaboration work as International Standards and ITU-T Recommendations. Clause 3 presents the individual organization procedures and policies that are to be followed. The paragraphs below describe how these procedures are synchronized for the different stages of approval.

As outlined in 7.7 above, each working level group keeps its parent informed of the progress of the collaborative work. When the work has progressed to a point where a schedule for synchronized approval can be established with a degree of confidence, it is important for the two working level groups to jointly plan the specific steps, taking into account scheduled dates of the ITU-T SG and JTC 1 SC meetings. Figure 5 shows the necessary alignment that needs to be achieved between the two approval processes.

When the two working level groups decide that the draft has reached a point of maturity and that the synchronized approval process should commence, each parent is advised of the decision.

For the first level of balloting on the JTC 1 side, the SC secretariat registers the Working Draft as a Committee Draft (CD), Proposed Draft Amendment (PDAM), or Proposed Draft Technical Report (PDTR) and distributes it for letter ballot to the National Bodies of the SC. The ballot period is normally three months but can be extended up to six months. At the same time, the draft text is distributed to the ITU-T SG members for review and comment. ITU-T member comments should be provided within the same time period.

Responses from National Bodies to the CD, PDAM, or PDTR ballot are collected by the SC secretariat and distributed in a Summary of Voting Report. ITU-T members will comment by means of contributions to the SG. Both sets of responses are to be made available to each of the two working level groups.

The two working level groups should coordinate their efforts in resolving all received comments and drafting the revised text. If the changes are substantive, a second CD, PDAM, or PDTR ballot and comment period for ITU-T members will be necessary.

When the issues have been resolved to the satisfaction of both working level groups, the draft will be elevated to the next level of approval. The document will be registered as a DIS or DAM and circulated for a five-month ballot by ITTF to the members of ISO and IEC. A DTR is circulated for a three month letter ballot at the JTC 1 level. At the same time the document will be submitted to the SG secretariat. The text will

be circulated as an SG document for review and comment. ITU-T member comments should be provided within the same time period so that all responses can be considered together. Also during this time period, the ITTF and the TSB will review the text and submit their comments.

It is at this point where synchronization is critical. The first controlling factor is the date of the ITU-T SG or WP meeting where determination (TAP) or consent (AAP) is to be obtained. At this meeting, the text must be at the DIS, DAM or DTR level in ISO/IEC. The second controlling factor is that the DIS, DAM or DTR ballot resolution meeting must have produced the final text for ITU-T approval:

a) for TAP, by 4 months before the SG meeting where approval is to be obtained so that the TSB Director can issue a letter announcing the intent to approve the Recommendation at the upcoming SG meeting;

b) for AAP, by 2 months after the SG meeting where consent was obtained so that the TSB Director can announce the Last Call for approval of the Recommendation.

Responses from the DIS, DAM, or DTR ballot are distributed in a Summary of Voting Report by the SC secretariat. ITU-T members will comment by means of contributions to the SG. Both sets of responses are to be made available to each of the two working level groups.

NOTE – If an ITU-T Member State indicates a problem which would prevent approval or if a problem is indicated on the JTC 1 side which would delay approval (e.g., an unplanned second DIS ballot), this should be immediately conveyed to all concerned so that appropriate action can be taken and, if necessary, a new synchronized plan established.

The DIS, DAM, or DTR ballot responses and the comments from ITU-T members will be considered at a ballot resolution meeting. With ITU-T participation, the group reviews and resolves the comments and negative ballots. If revisions are substantive, a second DIS, DAM, or DTR ballot and comment period for ITU-T members will be required to affirm that all are in accord with the results.[5)] This ballot and comment period is five months for DISs and DAMs, and is three months for DTRs.

The DIS, DAM, or DTR ballot resolution meeting is extended to include the ITU-T approval process so that any needed changes/corrections resulting from review of the text can be mutually agreed[6)]. With the text available, the appropriate ITU-T approval process (TAP or AAP) will be conducted. Immediately following ITU-T approval, the editor provides the final text along with the Disposition of Comments document to the SC secretariat. This initiates the two-month ballot of the FDIS or FDAM to National Bodies of ISO and IEC (there is no additional ballot for DTRs). The FDIS ballot may be omitted if the DIS ballot was successful without any negative vote. This two-month letter ballot has only one of two possible outcomes: approval or rejection. If approval is not obtained from the ITU-T approval process or in response to the ISO/IEC letter

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5) A restart of the ITU-T approval process will normally be necessary if the SG meeting where approval is planned to take place (TAP) or Last Call announcement deadline date (AAP) occurs before the second ballot process will have been successfully completed.

6) In the unlikely event that substantive changes are deemed necessary at this late stage, another JTC 1 ballot (and comment period for ITU-T members) will be required to affirm that all are in accord with the results. This ballot (and comment) period is five months (three months for DTRs). Approval on the ITU-T side would normally be delayed until after completion of the JTC 1 ballot.

ballot, the next action will be based on consultation between ISO/IEC JTC 1 and ITU-T, taking into account the specifics of the situation.

While the ISO/IEC letter ballot is being conducted, the ITTF and the TSB will work together to facilitate prompt publication.

7.10 Publication

The collaborative Recommendation | International Standard should be published as soon as practical after an affirmative response to the ISO/IEC FDIS ballot has been achieved. Note that, should the DIS ballot be successful without negative votes, the FDIS ballot may be omitted and the text may proceed as soon as practical to publication.

Care should be taken to ensure that there is a single master of the common text for each language that is used for publication.

7.11 Defects

The work is not necessarily completed at the stage of publication. While every effort has been taken to produce a quality document, experience has shown that defects may be found as the document is being applied to implementations. Therefore, there is need for an ongoing responsibility for dealing with Defect Reports.

It is critical that rapid correction of possible errors, omissions, inconsistencies, or ambiguities be performed collaboratively. The procedures for this important effort are outlined below.

7.11.1 Defect Review Groups

The JTC 1 SC and ITU-T SG should each appoint a Defect Review Group that will mutually collaborate in resolving defects. Each Defect Review Group should have a chairperson and be composed of nominated experts.

7.11.2 Submission of Defect Reports

Defect Reports may be submitted by ISO/IEC National Bodies, ITU-T members, liaison organizations, the responsible SG or any of its WPs, the responsible SC or any of its WGs, or by a member of either Defect Review Group. Appendix I provides the Defect Report form to be used. It is a modified version of the JTC 1 Defect Report form to encompass both JTC 1 and ITU-T information.

Defect Reports submitted to one organization should be immediately copied to the other organization. The JTC 1 WG secretariat will handle the administrative aspects.

The Defect Review Groups are responsible for maintaining an up-to-date list of all submitted Defect Reports and the status of each.

7.11.3 Procedures for resolving defects

The JTC 1 procedures for handling Defect Reports (see ISO/IEC Directives for JTC 1) are followed with modifications to encompass collaborative ITU-T and JTC 1 participation in the resolution of the defect.

When mutual agreement of the two Defect Review Groups has been obtained for a resolution of a defect, the appropriate approval procedures are initiated in the ITU-T and JTC 1.

If the resolution of a Defect Report results in a need to correct the text of a collaborative Recommendation | International Standard, then the Editor prepares a draft Technical Corrigendum and sends it to the SC secretariat and the SG secretariat. JTC 1 approval is obtained by means of a three-month SC ballot/JTC 1 comment period. ITU-T approval under TAP is obtained by the SG Chairman submission of the text to the TSB, announcement in the Director's letter followed by a three-month consultation period and approval at a SG meeting. ITU-T approval under AAP is obtained by consent at a SG or WP meeting followed by approval through the Last Call. The approved corrections are published in common text format as a Technical Corrigendum to the Recommendation | International Standard.

Alternatively, if the resolution of the Defect Report involves substantial change, then it is processed as an amendment using the procedures in 7.12.

The Editor for the Recommendation | International Standard will maintain an up-to-date copy of the complete integrated text, including all changes approved through the defect process.

7.12 Amendments

Further work is often identified as a result of the development process and as a result of changing technology and new operational requirements. Accordingly, there is an important need for amendments that provide expansions, enhancements, and updates to the basic provisions of the published Recommendation | International Standard.

The processing of amendments follows the same procedures as the original development beginning with the approval, if necessary, of an NP by JTC 1.

The Editor for the Recommendation | International Standard will maintain an up-to-date copy of the complete integrated text, including all changes approved through the amendment process.

8 Collaboration using a Collaborative Team

The basic concept of collaboration using a collaborative team is to perform all development, consensus building, and ballot/comment resolution in common meetings to produce mutually agreed common text for one or more Recommendations | International Standards. Although the remainder of this section focuses on common text, development of twin text is also possible using a Collaborative Team.

8.1 Collaborative Team

Upon agreement by the ISO/IEC JTC 1 Subcommittee and the ITU-T Study Group that a specific area of work is to be developed collaboratively in common meetings, a Collaborative Team (CT) is established with participants from both organizations.

The mutually agreed terms of reference for each Collaborative Team should include:

– The scope of the effort as it relates to each organization's program of work (ITU-T Question and JTC 1 project). Where possible, it should include identification of Recommendation(s) and International Standard(s) that are to be developed collaboratively.

– The parent body in each organization to which the CT is to directly report (i.e., SG or WP, and SC or WG).

– Any reporting or tracking provisions beyond those specified in 8.7.

– Any start-up provisions to accommodate work in progress.

The CT uses the procedures detailed below to build consensus and to achieve synchronization of approvals leading to publication of common text.

Figure 7 provides a work flow diagram that identifies the various stages of the collaborative process from concept to final publication. Collaboration can also continue for the ongoing maintenance phase (see 8.11 and 8.12).

The terms of reference or mode of collaboration can be changed at any time by mutual agreement of the SG and SC. Procedures for terminating a collaborative relationship are covered in 4.5.

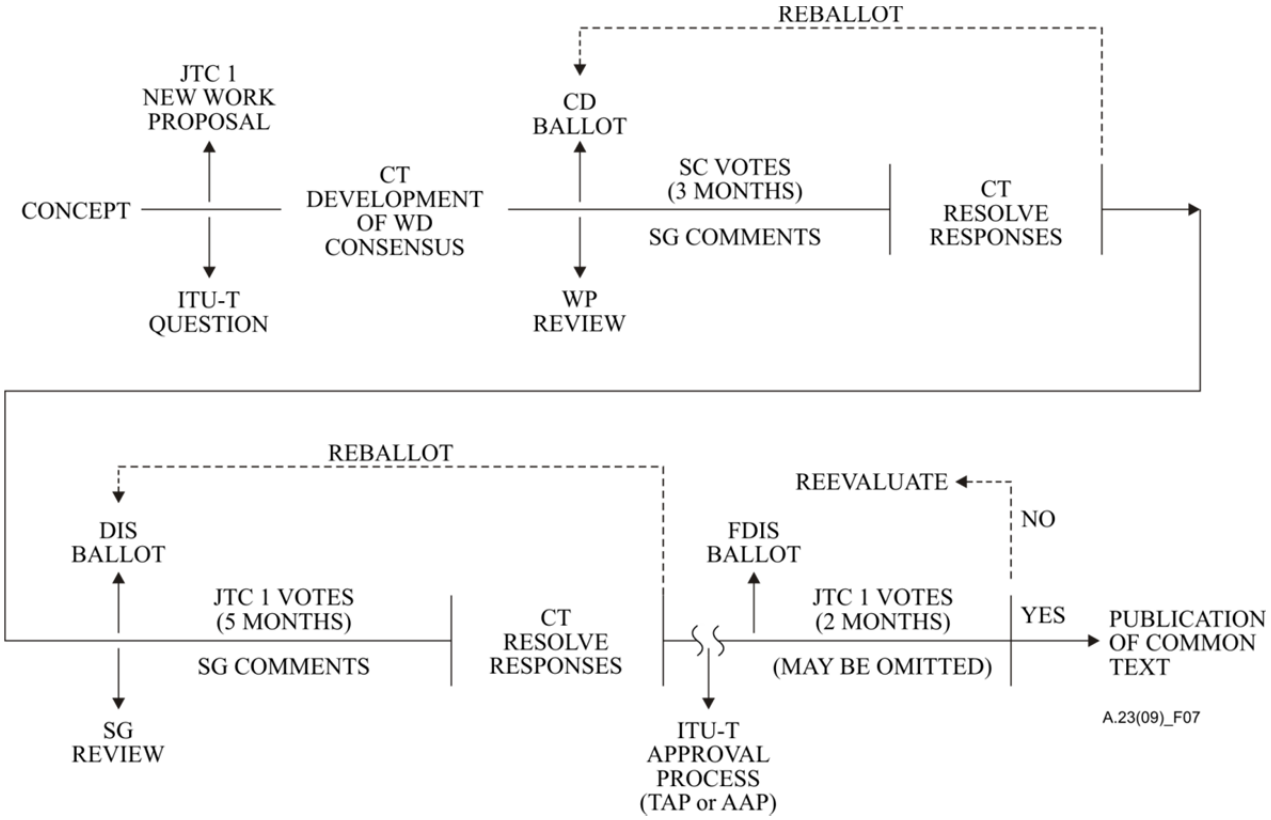

Figure 7 – Work flow diagram when Collaborative Team is used

8.2 Convenor(s) and Editor(s)

The CT will have either a single Convenor agreed upon by the JTC 1 SC and the ITU-T SG, or co-Convenors, one appointed by each organization (JTC 1 SC and ITU-T SG). In the case of co-Convenors, the chairing of meetings can be on a rotational basis or as otherwise agreed by the CT.

Administrative support is the responsibility of the CT Convenor(s) and participating members.

A single Editor or set of Editors shall be appointed to produce and maintain the single master collaborative text during the development and approval process. The draft text shall be prepared and maintained by the appointed Editor(s) according to the common format criteria agreed by the ISO/IEC and ITU-T secretariats (see Appendix II). Each iteration of the draft collaborative text shall be dated. Changes from the previous draft should be highlighted by change marks.

Appointed Editors will be responsible for the text through draft iterations and final submission to the secretariats for publication. The individuals selected for this task should make a commitment to continue the work to completion so that continuity can be maintained throughout the effort.

8.3 Participants

Eligibility for attendance at a CT meeting is determined by the requirements of the two organizations. Thus, participants in the work of the CT must be representatives from JTC 1/SC National Bodies, ITU-T members, or recognized liaison organizations (including associated JTC 1 SCs/WGs and ITU-T SGs/WPs).

During the development of working drafts, participants should have the freedom and flexibility to participate as individual experts in reaching sound, objective solutions to the issues at hand. It is not required that there be equal, balanced representation from each organization, nor are the number of representatives to be restricted as a normal procedure, except as specifically agreed for editing (see 8.6.2) or ballot resolution (see 8.6.3).

8.4 Meetings

Each CT meeting must be properly scheduled in advance. The CT is responsible for making its own meeting arrangements and schedule, subject to agreement by the SG and SC. Generally, hosts for CT meetings should alternate between JTC 1 and ITU-T organizations, but they may also be cooperatively hosted with appropriate agreement. CT meetings should be scheduled at the same location and time as the respective JTC 1 SC/WG or ITU-T SG/WP meetings although meetings may also be scheduled at other times and locations. The CT is permitted to meet during a CD/PDAM or DIS/DAM ballot/comment period to pursue its work program but the CT shall not discuss during these periods the material under ballot (see 8.9).

The Convenor(s) of the CT shall maintain a mailing list of all individuals desiring to be informed about meetings of the CT. Meeting notices and agenda must be distributed at least one month before the meeting starting date. The meeting notice and agenda must be sent to the JTC 1 SC secretariat (for distribution to National Bodies of the SC) and to the ITU-T SG secretariat (for posting). Each agenda must provide a list of documents to be considered, which will include previous meeting reports and input contributions (see 8.5).

8.5 Contributions

Contributions to the work of the CT provide proposed concepts and text, comments on working drafts, and editorial and technical revisions to the work. Contributions may be provided by JTC 1/SC National Bodies, ITU-T members, recognized liaison organizations, and individual experts who are accredited participants in the CT. Each contribution shall indicate its source and status (e.g., national position, working proposal, comments). Expert papers are to be given consideration as additional views during the development of working drafts, but contributions from JTC 1/SC National Bodies and ITU-T members will take precedence.

Documents to be considered at the meeting should be in the hands of the CT Convenor(s), or the SC or WG secretariat at least seven working days in advance. Late contributions will only be considered upon agreement by the meeting participants.

All contributions to the CT, regardless of their means of submittal, will be identified and maintained by the CT in a document register. The Convenor(s) of the CT shall maintain a mailing list of the CT participants and ensure timely distribution of contributions and meeting output documents to the experts. Meeting output documents are also sent to the JTC 1 SC or WG secretariat (for distribution to National Bodies of the SC) and to the SG secretariat (for distribution as SG documents). Meeting participants are encouraged to exchange documents directly to facilitate preparation for the meetings.

8.6 Achieving consensus

The functions of the CT meetings are three-fold: the development of draft texts, editing of draft texts, and resolution of ballots and comments. The CT meetings are only authorized to deal with the specific collaborative project/Question identified in the terms of reference of the CT.

Achieving consensus at each step of the process will be facilitated through cooperation of JTC 1 and ITU-T experts at their national level to provide consistent viewpoints.

In general, the intent is that the degree of consensus and the stability of the agreements will increase at each step of the collaborative process.

8.6.1 Development of draft text

In responding to the requirements of the designated JTC 1 project and ITU-T Question, the development of draft text should be a consensus building process. Typically, there are a diversity of contributions introduced during the development process. These should all be objectively considered in seeking a sound solution. A synergy should emerge from the interaction of the participating experts with their different perspectives. The conduct of meetings should foster this spirit of cooperation.

Balloting, or voting, by the CT during the development of working drafts is considered inappropriate in reaching a consensus and could be counter-productive. The CT consensus should be built through discussion, acceptance, compromise, and, if necessary, informal polling of delegates to sample the state of agreement. It would also be appropriate to record in meeting reports points of consensus as well as any specific reservations that meeting delegates have on particular issues.

Topics of concern to only the ITU-T or to only JTC 1 may be addressed by sub-group meetings held within the framework of the CT meeting.

In rare cases, it may become apparent during the development of common text that one or more specific technical differences are necessary taking into account the needs of JTC 1 and the ITU-T. All proposed differences should be carefully examined to ensure there is a legitimate need. When this is the case, the common text is to include the full technical material needed by each organization with wording that specifically identifies any text that is applicable only to one organization.

8.6.2 Editing drafts

Meeting time is often consumed with resolution of issues and development of agreements-in-principle, but there is insufficient time to develop complete text. The editing task can often be done more efficiently by an authorized smaller-sized meeting with a well-defined scope of work. The meeting will be chaired by an individual appointed by the CT.

The meeting will only be authorized to produce text for specifically identified issues and agreements. Any other technical issues that arise during the meeting must be referred back to the CT for resolution. The draft text that is produced by the meeting must be circulated to CT participants within four weeks of completion of the meeting.

8.6.3 Resolution of ballots and comments

The approval processes will be conducted according to the established procedures of each organization with the adaptation and synchronization described in 8.9. A Ballot/Comment Resolution Group should be convened as soon as practical (e.g., within ten weeks) after the close of the ballot/comment period to review and resolve the results. The group should be chaired by the CT Convenor or Editor.

The Ballot/Comment Resolution Group may be the CT. Alternatively, where the CT may be too large for effectiveness, the Ballot/Comment Resolution Group may be composed of the document editor(s), one primary representative for each National Body, and one primary representative for each country participating in the ITU-T SG. Primary representatives from the same country should, whenever possible, coordinate their positions for consistency. Additional representatives from JTC 1 and ITU-T may also be invited to attend as deemed necessary by the CT. Each primary representative should be authorized by its sponsoring organization to approve the handling of its comments by the group.

The purpose of a ballot/comment resolution meeting is to resolve as many of the negative ballots/comments as possible without invalidating any affirmative ballots/positions. The goal is to achieve agreements resulting in the greatest possible consensus. This can be done provided that all affected representatives are satisfied with the handling of the comments. If the ballot/comment resolution spans multiple meetings, it is important that continuity of representation be maintained through the complete process.

In the course of its work, the Ballot/Comment Resolution Group may uncover major technical issues. The resolution of such matters is beyond the scope of the group and must be referred back to the CT (or parent bodies) along with appropriate recommendations for resolution.

8.7 Progress reporting

The CT is responsible for providing written reports of each meeting to the sponsoring JTC 1 SC/WG and ITU-T SG/WP. These reports should summarize the results of the meeting including agreements reached, areas identified for further study, the status of collaborative progress, and projected upcoming milestones (see 5.2). Comments and/or instructions may be provided back to the CT from SG/WP and SC/WG meetings.

8.8 Liaisons

It is important to ensure continuing coherence of work in the Information Technology area. Therefore, maintaining established liaisons with other activities and organizations that have been identified to have an appropriate relationship is essential to the success of the work. Meeting reports and mature drafts should be distributed and comments invited. Liaison organizations are also encouraged to provide contributions to the work. Liaison contributions and comments are considered additional views to facilitate the work and to identify other considerations.

Liaison documents generated by the CT are conveyed to the SC secretariat and the SG secretariat for appropriate distribution.

8.9 Synchronized approval process

While the work of the CT accomplishes the joint work for the JTC 1 project and ITU-T Question to produce a single common text for both organizations to publish, each organization retains its individual procedures for approving the results of the collaborative work as International Standards and ITU-T Recommendations. Clause 3 presents the individual organization procedures and policies that are to be followed. The paragraphs below describe how these procedures specifically apply to the CT work and are synchronized for the different stages of approval.

As outlined in 8.7 above, the CT keeps each organization informed of the progress of its work. When the work has progressed to a point where a schedule for synchronized approval can be established with a degree of confidence, it is important for the CT to plan the specific steps, taking into account scheduled dates of the ITU-T SG and the JTC 1 SC meetings. Figure 5 shows the necessary alignment that needs to be achieved between the two approval processes.

When the CT decides that the draft has reached a point of maturity and that the synchronized approval process should commence, each parent is advised of the decision.

For the first level of balloting on the JTC 1 side, the SC secretariat registers the working draft as a Committee Draft (CD), Proposed Draft Amendment (PDAM), or Proposed Draft Technical Report (PDTR) and distributes it for a letter ballot to the National Bodies of the SC. The ballot period is normally three months but can be extended up to six months. At the same time, the working draft is distributed to the ITU-T SG members for review and comment. ITU-T member comments should be provided within the same time period so that all responses can be considered together.

Responses from National Bodies to the CD, PDAM or PDTR ballot are collected by the SC secretariat and distributed in a Summary of Voting Report. ITU-T members will comment by means of contributions to the SG. Both sets of responses are given to the CT.

The SC ballot responses and the comments from ITU-T members are handled by the Ballot/Comment Resolution Group (see 8.6.3). Every effort should be made to resolve all issues. If the changes are substantive, a second CD, PDAM, or PDTR ballot and comment period for ITU-T members will be necessary. As with the first ballot/comment, the results will be referred to the Ballot/Comment Resolution Group for action.

When the issues have been satisfactorily resolved, the draft will be elevated to the next level of approval. The document will be registered as a DIS or DAM and circulated for a five month ballot by ITTF to the National Bodies of ISO and IEC. A DTR is circulated for a three month letter ballot at the JTC 1 level. At the same time, the document will be submitted to the SG secretariat. The text will be circulated as a SG document for review and comment. ITU-T members should also provide their comments within the same time period so that all responses can be considered together. Also during this time period, the ITTF and the TSB will review the text and submit their comments.

It is at this point where synchronization is critical. The first controlling factor is the date of the ITU-T SG or WP meeting where determination (TAP) or consent (AAP) is to be obtained. At this meeting, the text must be at the DIS, DAM or DTR level in ISO/IEC. The second controlling factor is that the DIS, DAM, or DTR ballot resolution meeting must have produced the final text for ITU-T approval:

a) for TAP, by 4 months before the SG meeting where approval is to be obtained so that the TSB Director can issue a letter announcing the intent to approve the Recommendation at the upcoming SG meeting;

b) for AAP, by 2 months after the SG meeting where consent was obtained so that the TSB Director can announce the Last Call for approval of the Recommendation.

Responses to the DIS, DAM or DTR ballot are distributed in a Summary of Voting Report by the SC secretariat. ITU-T members will comment by means of contributions to the SG. Both sets of responses are given to the CT.

NOTE – If an ITU-T Member State indicates a problem which would prevent approval or if a problem is indicated on the JTC 1 side which would delay approval (e.g., an unplanned second DIS ballot), this should be immediately conveyed to all concerned so that appropriate action can be taken and, if necessary, a new synchronized plan established.

The DIS, DAM or DTR ballot responses and the comments from ITU-T members are handled by the Ballot/Comment Resolution Group. The group reviews and resolves the comments and negative ballots. If

revisions are substantive, a second DIS, DAM, or DTR ballot and comment period for ITU-T members will be required to affirm that all are in accord with the results[7]. This ballot and comment period is five months (three months for DTR).

The Ballot/Comment Resolution meeting is extended to include the ITU-T approval process so that any needed changes/corrections resulting from review of the text can be mutually agreed[8]. With the text available, the appropriate ITU-T approval process (TAP or AAP) will be conducted. Immediately following ITU-T approval, the editor provides the final text along with the Disposition of Comments report to the SC secretariat. This initiates the two-month ballot of the FDIS or DAM to National Bodies of ISO and IEC (there is no additional ballot for DTRs). The FDIS ballot may be omitted if the DIS ballot was successful without any negative vote. This two-month ballot has only one of two possible outcomes: approval or rejection. If approval is not obtained from the ITU-T approval process or in response to the ISO/IEC letter ballot, the next action will be based on consultation between ISO/IEC JTC 1 and the ITU-T, taking into account the specifics of the situation.

While the ISO/IEC letter ballot is being conducted, the ITTF and the TSB will work together to facilitate prompt publication.

8.10 Publication

The collaborative Recommendation | International Standard should be published as soon as practical after an affirmative response to the ISO/IEC FDIS ballot has been achieved. Note that, should the DIS ballot be successful without negative votes, the FDIS ballot may be omitted and the text may proceed as soon as practical to publication

Care should be taken to ensure that there is a single master of the common text for each language that is used for publication.

8.11 Defects

The work is not necessarily completed at the stage of publication. While every effort has been taken to produce a quality document, experience has shown that defects may be found as the document is being applied to implementations. Therefore, there is a need for an ongoing responsibility for dealing with Defect Reports.

It is critical that rapid correction of possible errors, omissions, inconsistencies, or ambiguities be performed collaboratively. The procedures for this important effort are outlined below.

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[7] A restart of the ITU-T approval process will normally be necessary if the SG meeting where approval is planned to take place (TAP) or Last Call announcement deadline date (AAP) occurs before the second ballot process will have been successfully completed.

[8] In the unlikely event that substantive changes are deemed necessary at this late stage, another JTC 1 ballot (and comment period for ITU-T members) will be required to affirm that all are in accord with the results. This ballot (and comment) period is five months (three months for DTR). Approval on the ITU-T side would normally be delayed until completion of the JTC 1 ballot.

8.11.1 Defect Review Group

The CT may request the JTC 1 SC and the ITU-T SG to establish a collaborative Defect Review Group to be chaired by an appointed Editor. The group should consist of the experts nominated by the JTC 1 SC and the ITU-T SG.

8.11.2 Submission of Defect Reports

Defect Reports may be submitted by ISO/IEC National Bodies, ITU-T members, liaison organizations, the responsible SG or any of its WPs, the responsible SC or any of its WGs, or by a member of the Defect Review Group. Appendix I provides the Defect Report form to be used. It is a modified version of the JTC 1 Defect Report form to encompass both JTC 1 and ITU-T information.

Defect Reports submitted to one organization should be immediately copied to the other organization. The JTC 1 WG secretariat will handle the administrative aspects.

The Defect Review Group is responsible for maintaining an up-to-date list of all submitted Defect Reports and the status of each.

8.11.3 Procedures for resolving defects

The JTC 1 procedures for handling Defect Reports (see ISO/IEC Directives for JTC 1) are followed with modifications to encompass collaborative ITU-T and JTC 1 participation in the resolution of the defect.

When agreement is reached in the Defect Review Group for resolution of a defect, the appropriate approval procedures are initiated in the ITU-T and JTC 1.

If the resolution of a Defect Report results in a need to correct the text of a collaborative Recommendation | International Standard, then the Editor prepares a draft Technical Corrigendum and sends it to the SC secretariat and the SG secretariat. JTC 1 approval is obtained by means of a three-month SC ballot/JTC 1 comment period. ITU-T approval under TAP is obtained by the SG Chairman submission of the text to the TSB, announcement in a Director's letter followed by a consultation period and approval at a SG meeting. ITU-T approval under AAP is obtained by consent at a SG or WP meeting followed by approval through the Last Call. The approved corrections are published in common text format as a Technical Corrigendum to the Recommendation | International Standard.

Alternatively, if the resolution of the Defect Report involves substantial change, then it is processed as an amendment using the procedures in 8.12.

The Editor for the Recommendation | International Standard will maintain an up-to-date copy of the complete integrated text, including all changes approved through the defect process.

8.12 Amendments

Further work is often identified as a result of the development process and as a result of changing technology and new operational requirements. Accordingly, there is an important need for amendments that provide expansions, enhancements, and updates to the basic provisions of the published Recommendation | International Standard.

The processing of amendments follows the same procedures as the original development beginning with the approval, if necessary, of an NP by JTC 1. These may be considered as extensions to the original work by the same CT or may be considered as separate new work that requires the formation of a new CT.

The Editor for the Recommendation | International Standard will maintain an up-to-date copy of the complete integrated text, including all changes approved through the amendment process.

9 Recognition of cooperation

The cooperation between the ITU-T and JTC 1 has resulted in the development of a large and growing set of related Recommendations and International Standards. It is valuable that users perceive these results as a cohesive whole. The common text format set forth in Appendix II facilitates this view. Another important area where cohesiveness can be shown is with respect to previously completed collaborative work that resulted in technically aligned text published separately with "house-style" differences. When these so-called "twins" are to be updated and/or republished, it is recommended that they be converted to the common text format.

If, during a transition period, any of these "twin" Recommendations or International Standards will be updated but not in the common text format, attention should be given to the following means to reinforce the cooperation and cohesiveness of the development effort:

a) Include a footnote from the title of the ITU-T Recommendation that notes the collaborative nature of the work, gives the title of the "twin" ISO/IEC International Standard, and states the degree of technical alignment (for examples, see the ITU-T X.200-series of Recommendations);

b) Include text in the Foreword of the International Standard that notes the collaborative nature of the work, gives the title of the "twin" ITU-T Recommendation, and states the degree of technical alignment;

c) If in the Reference section of a Recommendation there is a reference to an ITU-T Recommendation that has a "twin" International Standard, then include in parentheses a reference to the twin (or use the format given in Appendix II);

d) If in the Normative References clause of an International Standard there is a reference to an International Standard that has a "twin" Recommendation, then include in parentheses a reference to the twin (or use the format given in Appendix II); and

e) If there are technical differences between a Recommendation and an International Standard, then include an Appendix/Annex in both documents that summarizes the differences.

A third important area involves the large number of Recommendations and International Standards that exist only in one organization, but make use of and reference Recommendations and International Standards that were developed collaboratively. In this situation, the spirit of cooperation can be communicated by ensuring that references are given to documents of both organizations [see items c) and d) above]. To facilitate this referencing, the TSB and the ITTF will maintain a listing of all collaborative Recommendations and International Standards.

10 Applying the Common Patent Policy for ITU-T/ITU-R/ISO/IEC

Information pertaining to the common patent policy for ITU-T/ITU-R/ISO/IEC is available at http://www.itu.int/ITU-T/ipr/ and in the ISO/IEC Directives, Part 1:2009, and Part 2:2004, Annex I (Appendix I).

For a common text or twin text Recommendation | International Standard, entities are to follow this common patent policy and submit patent statements, as appropriate, to all three organizations.

Appendix I

Defect report form

Defect report

The submitter of a defect report shall complete items 2 to 4 and 7 to 10 and, optionally, item 11 and shall send the form to the convener or secretariat of the WG with which the relevant editor's group is associated. The WG convener or secretariat shall complete items 1, 5 and 6.

1 Defect Report Number:
2 Submitter: **3 Addressed to**: JTC 1/SC ____/WG ____ ITU-T SG____/WP____/Q.____ **4 WG secretariat**:
5 Date circulated by WG secretariat: **6 Deadline on response from editor**:
7 Defect Report concerning (number and title of ITU-T Recommendation | International Standard): **8 Qualifier** (e.g., error, omission, clarification required): **9 References in document** (e.g., page, clause, figure and/or table numbers): **10 Nature of defect** (complete, concise explanation of the perceived problem):
11 Solution proposed by the submitter (optional):
12 Editor's response:

Appendix II

Rules for presentation of ITU-T | ISO/IEC common text

This appendix provides rules for use by editors in preparing common text ITU-T Recommendations | ISO/IEC International Standards (or Technical Reports). The presentation rules were developed jointly by the secretariats of the ITU-T and ISO/IEC. Further evolution of these presentation rules is the joint responsibilities of the secretariats.

This appendix is presented in the format of a common text ITU-T Recommendation | International Standard to illustrate use of the presentation rules described herein.

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Foreword

This Recommendation | International Standard establishes presentation rules for documents that are intended to be both ITU-T Recommendations and ISO/IEC International Standards.

The rules proposed in this Recommendation | International Standard are based on the "Author's guide for drafting ITU-T Recommendations" and on ISO/IEC Directives, Part 2. Deviations from these documents are proposed only in order to arrive at a common set of presentation rules.

In order to facilitate comparison with other presentation styles, this document has been prepared in accordance with the presentation rules that it mandates. The examples used within the text, such as for references, are for illustrative purposes only. Thus, this document constitutes an example of the proposed presentation style. It is noted that neither a Recommendation ITU-T A.1000 nor an ISO/IEC International Standard 0001 exists.

Introduction

Common text starts on page 1 and preliminary material on pages preceding page 1 will be numbered using lowercase roman numerals.

Preliminary material consists of:

a) cover page;

b) contents (optional);

c) foreword;

d) introduction (optional).

Preliminary material on the roman numbered pages may be different between the organizations.

A model is provided for the optional element "contents". The depth of headings in the Contents element is left to the discretion of the author. However, the rule should be: as short as possible.

A template is available from both TSB and ITTF to aid authors in drafting their texts. This template covers all aspects of the typographical requirements for publishing the common text Recommendations | International Standards. The template can be found at the ITU website at http://www.itu.int/itudoc/itu-t/itu_iso/.

INTERNATIONAL STANDARD

RECOMMENDATION ITU-T

Information technology – Rules for presentation of ITU-T | ISO/IEC common text

1 Scope

Notwithstanding the provisions of ISO/IEC Directives, Part 2, or the provisions of the "Author's guide for drafting ITU-T Recommendations", joint ITU-T and ISO/IEC documents should conform to the provisions contained in these Presentation Rules[1)].

Where these Presentation Rules do not specify a particular item, flexibility is given to editors to use the rules given in either the "Author's guide for drafting ITU-T Recommendations" or ISO/IEC Directives, Part 2.

NOTE 1 – For ITU-T | ISO/IEC common texts, in the clause "Scope" and in the boilerplate texts of the normative reference clause and the definition clause, the term "this Recommendation | International Standard" shall be used when the common text refers to itself.

Elsewhere in a common text, a term which is descriptive of the nature of the common text should be used when the document refers to itself. It replaces the ITU-T use of the word Recommendation and the ISO/IEC use of the words International Standard. The first letter of the word(s) of such a descriptive term shall be capitalized to indicate that it refers to the whole of the common text. For this present common text, the term "Presentation Rules" is used when the common text refers to itself. Examples for other common texts could be:

- "this Specification" or "this Protocol Specification";
- "this Model" or "this Reference Model";
- "this Definition" or "this Service Definition";
- "this Framework" or "this Security Framework".

NOTE 2 – The vertical bar used in the expression "Recommendation | International Standard" is meant to denote either identical Recommendations | International Standards or paired Recommendations | International Standards which are equivalent in technical content.

2 Normative references[2)]

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The

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1) The term "Presentation Rules" is used to denote the entirety of the present Recommendation | International Standard when common text herein makes reference to itself. For further explanation, see Note 1.

2) See Annex B for information on how to reference Recommendations now that the CCITT has been replaced by the Telecommunication Standardization Sector within the International Telecommunication Union.

Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

– Recommendation ITU-T X.613 (1992) | ISO/IEC 10588:1993, *Information technology – Use of X.25 packet layer protocol in conjunction with X.21/X.21 bis to provide the OSI connection-mode network service*.

– Recommendation ITU-T X.614 (1992) | ISO/IEC 10732:1993, *Information technology – Use of X.25 packet layer protocol to provide the OSI connection-mode network service over the telephone network*.

– Recommendation ITU-T X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information*.

– Recommendation ITU-T X.741 (1995) | ISO/IEC 10164-9:1995, *Information technology – Open Systems Interconnection – Systems management: Objects and attributes for access control.*

– Recommendation ITU-T X.882 (1994)/Amd.1 (1995) | ISO/IEC 13712-3:1995/Amd.1:1996, *Information technology – Remote Operations: OSI realizations – Remote Operations Service Element (ROSE) protocol specification – Amendment 1: Mapping to A-UNIT-DATA service and built-in operations.*

2.2 Paired Recommendations | International Standards equivalent in technical content

– Recommendation ITU-T X.218 (1993), *Reliable transfer: Model and service definition.*

ISO/IEC 9066-1:1989, *Information processing systems – Text communication – Reliable Transfer – Part 1: Model and service definition.*

– Recommendation ITU-T X.219 (1988), *Remote operations: Model, notation and service definition.*

ISO/IEC 9072-1:1989, *Information processing systems – Text communication – Remote Operations – Part 1: Model, notation and service definition.*

– Recommendation ITU-T X.222 (1995), *Use of X.25 LAPB-compatible Data Link procedures to provide the OSI connection-mode Data Link service.*

ISO/IEC 11575:1995, *Information technology – Telecommunications and information exchange between systems – Protocol mappings for the OSI Data Link service.*

2.3 Additional references

– Recommendation ITU-T X.6 (1993), *Multicast service definition*.

– ITU-T "*Author's guide for drafting ITU-T Recommendations*", March, 2007.

– ISO/IEC Directives, Part 2:2004, *Rules for the structure and drafting of International Standards*.

3 Definitions

For the purposes of this Recommendation | International Standard, the following definitions apply.

3.1 Common Text: The text contained in an ITU-T Recommendation and an International Standard which was developed jointly by ITU-T and ISO/IEC using the presentation style specified in this document.

3.2 Identical Recommendations | International Standards: These are Recommendations and International Standards which were developed jointly by ITU-T and ISO/IEC and have identical (i.e., common) text. This expression is the title of clause 2.1 in common texts according to the presentation style specified in this document.

3.3 Paired Recommendations | International Standards: These are Recommendations and International Standards which were developed in close collaboration between ITU-T and ISO/IEC and whose texts are technically aligned but not identical (i.e., twin text). This expression is the title of clause 2.2 in common texts according to the presentation style specified in this document.

3.4 Twin text: The texts contained in an ITU-T Recommendation and an International Standard which were developed in close collaboration between ITU-T and ISO/IEC and whose texts are technically aligned but not identical. The text differences might be noted in an annex.

4 Abbreviations

For the purposes of this Recommendation | International Standard, the following abbreviations apply.

CCITT International Telegraph and Telephone Consultative Committee (organ of ITU up to 28 February 1993)

IEC International Electrotechnical Commission

ISO International Organization for Standardization

ITTF Information Technology Task Force

ITU International Telecommunication Union

ITU-T International Telecommunication Union – Telecommunication Standardization Sector (formerly CCITT)

TSB Telecommunication Standardization Bureau (formerly the Secretariat of CCITT)

WTSA World Telecommunication Standardization Assembly

5 Conventions

5.1 Text differences between ITU-T and ISO/IEC

It is recognized that there may be some instances where there needs to be some differences in the content of a common text (e.g., because of differences in scope of ITU-T and ISO/IEC). Justifiable differences can be contained in the common text with either explicit text or a notation convention designating its singular applicability. Unnecessary differences are strongly discouraged.

5.2 Other references

A Recommendation | International Standard may refer to other publications. When reference is made to a publication that is an identical ITU-T Recommendation | ISO/IEC International Standard, both the ITU-T Recommendation and ISO/IEC International Standard shall be referenced.

5.3 Dual notation

When reference is made within a text to an identical Recommendation | International Standard outside the text, a dual notation system shall be used whereby the ITU-T Recommendation will be given first, e.g.:

"see Rec. ITU-T X.882 **|** ISO/IEC 13712-3 and Amd.1."

The full title, and date of publication, shall be given in clause 2 for normative references and in a bibliographic annex for informative references.

5.4 Internal references

In a common text, the expression "this Recommendation | International Standard" shall be used when the text refers to itself. For further information, see clause 1, Note 1.

5.5 References to divisions and subdivisions

The terms which shall be used to designate the divisions and subdivisions that a Recommendation | International Standard may have are as follows:

Term	Example of numbering
clause	1
clause	1.2
clause	1.2.1
paragraph	no number

Use, for example, the following forms:

– "in accordance with clause 3";

– "according to 3.1" or "according to clause 3.1";

– "details as given in 3.1.1" or "details as given in clause 3.1.1";

– "see Annex B".

In general, it is unnecessary to use the term "subclause"; however, it is acceptable, when appropriate, to indicate "in accordance with the following subclauses".

6 General arrangement

The use of "Parts" for a series of documents published separately under the same International Standard number shall be indicated in the number assigned to that International Standard. See also 6.4 below.

Table 1 shows the general arrangement of the elements that may comprise a Recommendation | International Standard.

Table 1 – Arrangement of elements

Element	Number
Preliminary material	
Cover page – Note	None
Contents (optional) – Note	None
Foreword – Note	None
Introduction (optional) – Note	None
Common text core material	
Title	None
Scope	1
Normative references	2
Definitions	3
Abbreviations	4
Conventions	5
Text of Recommendation | International Standard	6 onwards
Annexes that form an integral part of the Recommendation | International Standard	A onwards
Annexes that do not form an integral part of the Recommendation | International Standard	A onwards (see 6.12)
Index (optional)	None
NOTE – These elements are considered as preliminary material and therefore may be treated differently by each organization.	

6.1 Contents (optional)

The Contents element may list all the subdivisions of the main text and annexes, or only the first one or two levels of the subdivisions and annexes. However, the rule should be: as short as possible. All the elements listed shall be cited with their full titles. Page numbers may be present. Figures and tables should normally not be included in the Contents list. If a list of figures and/or tables is required, it should be added separately with an appropriate reference to it in the Contents list.

6.2 Foreword

The Foreword shall be present. The content of this element is provided by the individual organization and may contain a general statement concerning patent statements.

6.3 Introduction (optional)

The Introduction, if present, gives information or commentary about the technical content of the Recommendation | International Standard and about the reasons prompting its preparation. It shall not contain requirements.

The ISO/IEC Introduction may also contain information about specific patents associated with the Recommendation | International Standard. Such patent information will not be printed in the ITU-T Introduction; however, an indication is provided that information on patent statements submitted to ITU-T can be found in its database accessible from the ITU website at http://www.itu.int/ITU-T/ipr.

6.4 Title

The title shall appear on page 1 just preceding clause 1, Scope. It shall comprise separate elements, each as short as possible, proceeding from the general to the particular. In general, not more than three elements shall be used; the introductory element shall be "Information technology".

The first letter of each element of the title shall be capitalized. All other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation | International Standard in accordance with the conventions given in the Recommendation | International Standard.

In common text multi-part International Standards, the term "Part *n*" shall not appear in the title. See, for example, the reference to Rec. ITU-T X.721 | ISO/IEC 10165-2 in 2.1.

6.5 Scope

This element shall appear at the beginning of every Recommendation | International Standard, to define without ambiguity the subject of the Recommendation | International Standard and the aspects covered, thereby indicating the limits of applicability of the Recommendation | International Standard. It shall not contain requirements.

The scope shall start immediately after the title on page 1. All other pages in the Recommendation | International Standard shall be numbered sequentially.

6.6 Normative references

This element shall give a list of all normative documents referenced in the Recommendation | International Standard.

The list shall be introduced by the following wording:

"The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations."

NOTE – Publications to which only informative reference is made or publications which merely served as references in the preparation of the Recommendation | International Standard can be listed in a non-integral annex entitled "Bibliography" and placed as the last non-integral annex.

6.7 Definitions

This is an optional element giving definitions necessary for the understanding of certain terms used in the Recommendation | International Standard.

Clause 3 shall start with the following text: "For the purposes of this Recommendation | International Standard, the following definitions apply".

The definitions element (clause 3 of a Recommendation | International Standard) may contain subdivisions. Those subdivisions may contain a list of terms defined in other Recommendations or International Standards. For example, 3.1 could contain the following text: "The following terms are defined in Rec. ITU-T... | ISO/IEC...", followed by a list of terms used.

6.8 Abbreviations

If abbreviations are used in the text of the Recommendation | International Standard, this element shall be present, and shall contain a list of all the abbreviations, together with their non-abbreviated forms. The list shall take the form shown in clause 4 of these Presentation Rules and may contain subdivisions.

Clause 4 shall start with the following text: "For the purposes of this Recommendation | International Standard, the following abbreviations apply".

6.9 Conventions

This element may be present. If present, it shall describe any particular notation used in the Recommendation | International Standard.

6.10 Text of the Recommendation | International Standard

Paragraphs of the normal text shall start at the left margin.

6.10.1 Subdivision numbers

Subdivisions shall be numbered with the digits separated by periods. A period shall not be present after a single number.

The subdivision number shall appear on a separate line, together with the subdivision title.

NOTE – Numbering should not be used to create a subclause unless there is at least one further subclause at the same level. For example, a piece of text in clause 1 should not be designated subclause 1.1 unless there is also subclause 1.2.

6.10.2 Subdivision titles

The subdivision title shall appear to the right of the subdivision number.

The first letter of the title shall be capitalized. All other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation | International Standard in accordance with the conventions given in the Recommendation | International Standard.

6.10.3 Lists

Lists may take one of two forms. The first form is shown below:

– first item;

– second item;

– etc.

The second form is shown below:

a) first item;

b) second item;

c) etc.

Sublists may appear within a list. In this case, the list shall take the following form:

a) first item:

   1) first sub-item;

   2) second sub-item.

b) second item:

   1) first sub-item;

   2) second sub-item.

6.10.4 Figures

Each figure shall be referred to explicitly in the text of the Recommendation | International Standard. Figures shall be numbered with Arabic numerals, beginning with 1 (except within annexes; see 6.11 and 6.12). This numbering shall normally be independent of the numbering of the clause and of any tables. For large and complex publications, the author may exceptionally number sequentially with respect to the single digit clause number, e.g., "Figure 4-3" which denotes the third figure in clause 4. A single figure shall be designated "Figure 1".

The title shall be placed below the figure, centered and preceded by the text "Figure x – ", where x is the number of the figure. References in the text to specific figures should use the word "Figure" with an uppercase "F", e.g., "see Figure 1".

The first letter of the title shall be capitalized. All other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation | International Standard in accordance with the conventions given in the Recommendation | International Standard. As an example, see Figure 1 below.

6.10.5 Tables

Each table shall be referred to explicitly in the text of the Recommendation | International Standard. Tables shall be numbered with Arabic numerals, beginning with 1 (except within annexes; see 6.11 and 6.12). This numbering shall normally be independent of the numbering of the clause and of any figures. For large and complex publications, the author may exceptionally number sequentially with respect to the single digit clause number, e.g., "Table 4-3" which denotes the third table in clause 4. A single table shall be designated "Table 1".

The title shall be placed above the table, centered and preceded by the text "Table x – ", where x is the number of the table. References in the text to specific tables should use the word "Table" with an uppercase "T", e.g., "see Table 1".

The first letter of the title shall be capitalized. All other words shall not be capitalized unless they are special terms that are capitalized throughout the Recommendation | International Standard in accordance with the conventions given in the Recommendation | International Standard.

The first letter in the heading of each column shall be capitalized. Columns shall, if possible, be separated by vertical lines. The heading shall, if possible, be separated from the contents by a horizontal line. The elements of a table shall be framed.

Figure 1 – Example of a figure

6.10.5.1 Tables longer than a page length

When a table is longer than a page length and therefore must be continued over two or more pages, the following text shall appear at the bottom of the table on its first page: "(continued)". At the top of the continued table on intermediate pages, the following text shall appear "Table x (continued)". At the top of the continued table on the last page, the following text shall appear: "Table x (concluded)".

Column headings shall be repeated on each page.

6.10.5.2 Tables wider than a page width

When a table is wider than a page width and therefore must be continued over two or more sub-tables, the following text shall appear above intermediate sub-tables: "Table x (continued)" and the following text shall appear above the last sub-table: "Table x (concluded)".

Each row in the complete table shall be assigned an index number. For the first block of columns, which appears in the first sub-table, the first column will contain the index number with a lowercase "a" appended. For the second block of columns, which appears in the second sub-table, the first column will contain the index number with a lowercase "b" appended. Succeeding sub-tables will have index numbers appended with a lowercase letter in like manner.

An example of a wide table extending over two sub-tables is given in Table 2.

Table 2 – Example of a wide table extending over two sub-tables

Index	Column 1	Column 2	Column 3	Column 4	Column 5
1a	Data 1	Data 2	Data 3	Data 4	Data 5
2a	Data 11	Data 12	Data 13	Data 14	Data 15

Table 2 ***(concluded)***

Index	Column 6	Column 7	Column 8	Column 9	Column 10
1b	Data 6	Data 7	Data 8	Data 9	Data 10
2b	Data 16	Data 17	Data 18	Data 19	Data 20

When this table is reconstructed from its constituent parts, it shall have the following layout:

Index	Columns associated with "a"	Columns associated with "b"

6.10.6 Equations and formulas

Equations and formulas are written using the style "Equation" in the template. They shall be numbered consecutively with arabic numerals, beginning with 1 (except within annexes, see 6.11 and 6.12). This numbering shall normally be independent of the numbering of the clause and of any figures or tables. For large and complex publications, the author may exceptionally number sequentially with respect to the single digit clause number, e.g., "(6-1)" which denotes the first equation or formula in clause 6. An example is given below:

$$P_s = 2\omega\left[\sum_{j=1}^{n}\sum_{k=1}^{n}\int_V\left(\frac{\mu\vec{H}_i\cdot\vec{H}_k^*}{2}-\frac{\varepsilon\vec{E}_i\cdot\vec{E}_k^*}{2}\right)\mathrm{d}v\right] \quad (1)$$

6.10.7 Notes

Notes integrated in the text of a Recommendation | International Standard may be used only for giving information which is helpful to the understanding of the document. They shall not contain requirements.

Notes should normally be placed after the clause, subclause or paragraph to which they refer.

A single note within a subdivision shall start with the text "NOTE – ", placed at the beginning of the first line of the text of the note.

If two or more notes occur within the same numbered sub-division of text, they shall be designated "NOTE 1 – ", "NOTE 2 – ", "NOTE 3 – ", etc.

Alternatively, all notes integrated in the text may be numbered in a continuous sequence throughout the publication.

The note shall be indented from the margin of the main text, so that the extent of the note can be correctly understood for printing purposes.

Notes to tables and to figures shall be treated independently from footnotes and notes integrated in the text. They shall be located within the frame of the relevant table or immediately above the title of the relevant figure. A sequence of notes for any table or figure shall always start with a "NOTE 1 – ". Such notes may contain requirements.

Some examples of note numbering and layout are given in Annex A.

6.10.8 Use of words

The word "shall" shall be used to express mandatory requirements. The word "may" shall be used to express optional requirements. Although the negative form of "shall" is "shall not", the negative form of "may" is *not* "may not", but is "need not". The use of "may not" shall be avoided.

6.11 Integral annexes

Annexes that form an integral part of the Recommendation | International Standard shall appear immediately after the text of the Recommendation | International Standard. The annexes shall be designated A, B, C, etc. A single annex shall be designated "Annex A".

The title of the annex shall be immediately followed by the following text, centered: "(This annex forms an integral part of this Recommendation | International Standard.)".

Numbers given to the text elements, tables, figures and equations of an annex shall be preceded by the letter assigned to that annex, e.g., A.2, Figure B.5, Equation C-1. The numbering shall start afresh with each annex.

6.12 Non-integral annexes

Annexes that do not form an integral part of the Recommendation | International Standard shall appear immediately after the last annex that forms an integral part of the Recommendation | International Standard, or after the text, if there are no annexes that form an integral part of the Recommendation | International Standard. The annexes shall be designated with letters, as specified in 6.11, and follow-on sequentially after the integral annexes.

The title of the annex shall be immediately followed by the following text, centered: "(This annex does not form an integral part of this Recommendation | International Standard.)".

Numbers given to the text elements, tables, figures and equations of an annex shall be preceded by the letter assigned to that annex, e.g., A.2, Figure B.5, Equation C-1. The numbering shall start afresh with each annex.

6.13 Index

This element is optional, but if included it is the last element of the Recommendation | International Standard. The index entries may be referenced to page numbers. However, it is preferable to reference the index entry to the clause number where the indexed term is located. An example of an index is provided as the last element of these Presentation Rules. It is not exhaustive.

Annex A

Example of note numbering and layout

(This annex forms an integral part of this Recommendation | International Standard.)

A.1 Example of single note embedded in main text

A paragraph in the main text may look like this. It begins at the margin, with spacing between a title or paragraph which precedes and spacing between a title or paragraph which follows.

NOTE – There could be a single note following a paragraph of main text and that note might look like this. The note is slightly offset to the right of the main paragraph's left margin and second and subsequent lines of the note are aligned with the first line of the note. This ensures that when notes have multiple paragraphs, those paragraphs after the first will not be mistaken for main text. "NOTE" is in small caps and is separated by a space, an em dash (Unicode U+2014 or decimal 8212), and a space from the text of the note.

The left margin of the second paragraph of a single note is aligned with the first paragraph of the note.

Following the note, the main text may continue and once again the main text paragraph begins at the margin. The single note which is embedded in the text here does not have a number attached to it because it is the only note in this numbered subdivision

A.2 Example of consecutive notes embedded in main text

A paragraph in the main text may look like this. It begins at the margin, with spacing between a title or paragraph which precedes and with spacing between a title or paragraph which follows.

NOTE 1 – This is an example of a note which is part of a list of notes. Each note in the list has a number attached to it separated by a space, a dash, and a space from the text of the note. Every element of the note list is slightly offset to the right of the main paragraph's left margin.

NOTE 2 – This is an example of the second note in a list of notes. It also has a number associated with it and is aligned to the first note. This note also contains a second paragraph.

The left margin of the second paragraph of a note is aligned with the first paragraph of the note.

Following the notes, the main text may continue and once again the main text paragraph begins at the margin.

A.3 Example of several notes embedded in a subdivision

A paragraph in the main text may look like this. It begins at the margin, with spacing between a title or paragraph which precedes and with spacing between a title or paragraph which follows.

NOTE 1 – This is the first note in A.3. It is numbered to allow unambiguous reference to each note within the numbered subdivision.

Sometimes there are cases where the main text continues after a note, but in the same subdivision there might be additional notes.

NOTE 2 – This is the second note in A.3 and it does not follow directly after NOTE 1.

There could even be a second paragraph to this note.

NOTE 3 – This is the third note in A.3.

Following the notes, the main text may continue and once again the main text paragraph begins at the margin.

A.4 Example of several notes at different levels

A paragraph in the main text may look like this. It begins at the margin, with spacing between a title or paragraph which precedes and with spacing between a title or paragraph which follows.

NOTE 1 – This is the first note in A.4. It is numbered to allow unambiguous reference to each note within the numbered subdivision.

a) There may be a list within the main text. This is the first element of the list.

NOTE 2 – There could be a single note pertaining to the first item in the list. It is numbered NOTE 2 since it is the second note in A.4.

The second paragraph of this note would appear as shown here.

b) This may be the second item of the list. If the text for this item extends to more than one line, it would look like this.

NOTE 3 – There could be two notes pertaining to the second item in the list. The first is numbered 3 since it is the third note in A.4.

NOTE 4 – This is the second note pertaining to the second item in the list.

NOTE 5 – There could be a note applying to the whole list following the end of a list. The note would be slightly indented from the numbering of the list. To ensure clarity, the text of the note should explicitly indicate that it applies to the whole list.

There could also be a second paragraph to this note.

NOTE 6 – There could be a note applying to the entire subdivision including the list. The note would be slightly indented from the margin of the main paragraph and looks like this.

There could also be a second paragraph to this note.

If the main text begins again, it begins at the left margin as shown here.

Annex B

Referencing ITU-T Recommendations

(This annex forms an integral part of this Recommendation | International Standard.)

As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as an organization on 28 February 1993 and in its place the Telecommunication Standardization Sector within the ITU has been created. The following rules are given to help editors of common text in making correct references to Recommendations.

B.1 References in normative reference list

Previously existing CCITT Recommendations as well as ITU-T Recommendations are referenced as follows:

– "Recommendation ITU-T X.92 (1988), *Hypothetical reference connections for public synchronous data networks*".

– "Recommendation ITU-T X.500 (2008) | ISO/IEC 9594-1:2008, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services*".

– "Recommendation ITU-T X.614 (1992) | ISO/IEC 10732:1993, *Information technology – Use of X.25 Packet Layer Protocol to provide the OSI connection-mode Network Service over the telephone network*".

– "Recommendation ITU-T X.1191 (2009), *Functional requirements and architecture for IPTV security aspects*".

B.2 References within the text

a) When using the expression "Recommendation | International Standard", do not use "ITU-T" before or after the word "Recommendation".

b) When referencing a specific Recommendation or Recommendation | International Standard, use the abbreviation "Rec.", e.g.:

  – "Rec. ITU-T X.6"

  – "Rec. ITU-T X.92"

  – "Rec. ITU-T X.96"

  – "Rec. ITU-T X.200 | ISO/IEC 7498-1"

  – "Rec. ITU-T X.614 | ISO/IEC 10732"

  – "Rec. ITU-T X.802 | ISO/IEC TR 13594"

Annex C

Rules for presentation of common text amendments and technical corrigenda

(This annex forms an integral part of this Recommendation | International Standard.)

C.1 General

This annex gives the presentation rules for amendments and technical corrigenda to common texts. All of the Rec. ITU-T A.1000 | ISO/IEC 0001 presentation rules apply to these two types of publications, except as noted in the following.

C.2 Titles, headers and footers

C.2.1 Titles

On page 1 of the amendment, the title area consists of the title of the base Recommendation | International Standard, the word "Amendment" plus the number of the amendment, and the amendment title.

On page 1 of the technical corrigendum, the title area consists of the title of the base Recommendation | International Standard, the words "Technical Corrigendum" plus the number of the technical corrigendum, and no corrigendum title.

C.2.2 Headers and footers

In the headers and footers on all the pages of the amendment starting with page 1, the abbreviation "Amd." is used.

In the headers and footers on all the pages of the technical corrigendum starting with page 1, the abbreviation "Cor." is used.

C.3 Organization of text

It should be noted in the examples below that the numbered headings in boldface give the location where the text changes are to be made. Instructions to the reader as to how to modify the base text are given in italics. The new text to be inserted in the base text is given in the same style as it would have been had it been in the base text originally, i.e., the presentation rules of Rec. ITU-T A.1000 | ISO/IEC 0001 are used.

For the location of where the text changes are to be made, reference should be made to the numbered clause (whatever its level); the page number should not be used.

C.4 Examples of an amendment and a technical corrigendum

An example of an amendment and an example of a technical corrigendum are found on the following two pages. For illustration purposes in this annex, the examples are put within a frame so as not to confuse the headers and footers of the example with those of these Presentation Rules. The frame is not part of the presentation standard for amendments and technical corrigenda.

ISO/IEC 13712-2:1995/Amd.1:1996 (E)

INTERNATIONAL STANDARD
RECOMMENDATION ITU-T

Information technology – Remote operations: OSI realizations – Remote Operations Service Element (ROSE) service definition

Amendment 1
Mapping to A-UNIT-DATA service and built-in operations

1) Clause 1

Rewrite the third sentence of the second paragraph as follows (with the changes underlined):

The ROSE services are provided by the use of the ROSE protocol (specified in a companion Recommendation | International Standard, Rec. ITU-T X.882 | ISO/IEC 13712-3), in conjunction with the Association Control Service Element (ACSE) services (Rec. ITU-T X.217 | ISO/IEC 8649) and the ACSE protocol (Rec. ITU-T X.227 | ISO/IEC 8650-1 and Rec. ITU-T X.237 | ISO/IEC 10035-1), and, optionally, the Reliable Transfer Service Element (RTSE) services (Rec. ITU-T X.218 | ISO/IEC 9066-1) and the RTSE protocol (Rec. ITU-T X.228 | ISO/IEC 9066-2), and the Presentation service (Rec. ITU-T X.216 | ISO/IEC 8822).

2) Clause 2.1

Add the following references:

– Recommendation ITU-T X.237 (1995) | ISO/IEC 10035-1:1995, *Information technology – Open Systems Interconnection – Connectionless protocol for the Association Control Service Element: Protocol specification*.

– Recommendation ITU-T X.880 (1994)/Amd.1 (1995) | ISO/IEC 13712-1:1995/Amd.1:1996, *Information technology – Remote Operations: Concepts, model and notation – Amendment 1: Built-in operations*.

– Recommendation ITU-T X.882 (1994)/Amd.1 (1995) | ISO/IEC 13712-3:1995/Amd.1:1996, *Information technology – Remote Operations: OSI realizations – Remote Operations Service Element (ROSE) protocol specification – Amendment 1: Mapping to A-UNIT-DATA service and built-in operations*.

3) Clause 6

Add the following figure and text at the end:

The internal structure of ROSE is depicted in Figure 3.

Basic ROSE provides for the ability to send and receive invocations and returns of operations. The basic ROSE services are defined in clause 8. In addition, ROSE may contain a number of built-in operations which provide extended ROSE services, as defined in clause 10. Built-in operations are included if they are required by the association contract being supported.

ISO/IEC 10165-4:1992/Cor.1:1996 (E)

INTERNATIONAL STANDARD
RECOMMENDATION ITU-T

Information technology – Open Systems Interconnection – Structure of management information: Guidelines for the definition of managed objects

Technical Corrigendum 1

1) Clause 6.4.5

Add the following at the end of the current paragraph:

A managed object identifies its actual class (see 7.4.3) by the value of its managed object class attribute.

2) Clause 7.4

Add the following immediately after 7.4.2 as a new subclause:

7.4.3 Actual class

A managed object class definition consists of the MANAGED OBJECT CLASS template (see 8.3) registered with the object identifier value for that class together with the set of templates referenced by that template and all templates referenced by templates in the set.

A managed object identifies its actual class by the value of its managed object class attribute which is the object identifier value used to register its MANAGED OBJECT CLASS template. Each managed object:

– supports all of the characteristics defined in its actual class definition in accord with the packages that are present;

– supports only operations that are defined in its actual class definition for packages that are present; and

– emits only notifications when a behaviour defined to trigger that notification in the actual class definition applies for packages that are present.

The absence of a GDMO construct for a characteristic in a managed object class definition specifically excludes that characteristic from that class definition. A subclass may add an excluded construct by explicit definition. Each subclass has its own registered object identifier value. For example, if REPLACE is not specified for a single-valued attribute, that attribute in instances of that class shall be regarded as read only; a subclass definition may extend this by adding the REPLACE construct to specify that the attribute can be replaced for instances of the subclass and instances that are compatible with the subclass.

Annex D

Deviations with respect to ISO/IEC Directives, Part 2

(This annex does not form an integral part of this Recommendation | International Standard.)

D.1 Differences

These Presentation Rules differ from ISO/IEC Directives, Part 2 in the following points:

– notes follow a mixture of ITU-T and ISO/IEC conventions, in order to facilitate work for editors and allow notes to stand out from the main text;

– boilerplate text has been modified in the Normative reference clause;

– single column text will be used in joint ITU-T | ISO/IEC documents.

D.2 Supplementary information

This list is not exhaustive and is given as an example.

Annex E

Deviations with respect to the "Author's guide for drafting ITU-T Recommendations"

(This annex does not form an integral part of this Recommendation | International Standard.)

E.1 Differences

These Presentation Rules differ from the "Author's guide for drafting ITU-T Recommendations" in the following point:

– appendices are replaced by annexes that are designated as not forming an integral part of the text.

E.2 Supplementary information

This list is not exhaustive and is given as an example.

Index

The number associated with the index entry indicates the clause where the index entry can be found.

Recommendation ITU-T A.31

Guidelines and coordination requirements for the organization of ITU-T workshops and seminars

(2008)

1 Scope

This Recommendation provides guidelines and coordination requirements for the organization of workshops and seminars by ITU-T. These workshops and seminars aim for discussion and dissemination of the development of standards for worldwide implementation in telecommunications carried out by the study groups (SGs) of ITU-T.

2 References

The following ITU-T Recommendations and other references contain provisions that, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T A.1] Recommendation ITU-T A.1 (2008), *Work methods for study groups of the ITU Telecommunication Standardization Sector (ITU-T)*.

3 Definitions

3.1 Terms defined elsewhere

None.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 seminar: The seminar is a primarily one-way format, focused on the dissemination of information, in what amounts to classroom-style format. Depending on the subject and/or audience, there may be a lesser or greater degree of participant interaction with the experts who are presenting.

3.2.2 workshop: The workshop environment is fundamentally a meeting of peers, gathered to discuss technical, implementation, industry, or strategic issues. Workshops can span a spectrum of styles, from highly technical events focusing on a single detailed issue, to broader gatherings intended to expose a wide spectrum of input and opinion.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

SC Steering committee

SDO Standards development organization

SGs Study groups

5 Conventions

Terminologies and definitions throughout this Recommendation must be considered in accordance with the ITU-T "Author's guide for drafting ITU-T Recommendations".

6 Choice of the proper event format

6.1 The format, scope and goals of each planned event must be determined at the start of the event-planning process, as these choices will determine the addressable target audience, and trigger the workshop or seminar notification and promotion process. The awareness of these nuances among different workshop and seminar events is relevant to appropriate event planning and, therefore, to consistent and successful results.

6.2 As a way forward to accomplish organization consistency and reach common understanding on the Sector's needs, and to facilitate cooperation and coordination in the organization of cross-Sector events, the above-mentioned standardized terminology (see clause 3) should be observed in order to cope with different characteristics of events within the Sector.

7 Event format specifics

7.1 Seminars

Seminars are most useful in sharing ITU-T vision and technical knowledge with new participants who have not previously been exposed to the scope, workings, or results of the ITU-T standardization process.

7.2 Workshops

Workshops are the preferred vehicle for demonstrations, technical issue resolution, and for the creation of specific deliverables (outputs). A workshop should have clear goals and a limited scope, setting and delivering upon well-defined expectations from the participants and workshop leaders.

8 Event coordination

Aiming at the improvement of the organization of ITU-T workshops and seminars, and coordination with the other two Sectors and the General Secretariat for the preparation, running and evaluation of workshops and seminars, four types of ITU-T workshops and seminars are defined, according to the distinct levels of coordination and the structures, scopes and goals each type requires.[1]

8.1 Study group strategy focused

8.1.1 These events are focused on a specific technical topic or standardization area.

8.1.2 The main objective is to review points of current development of technology, application and service.

8.1.3 In general, they gather information on standardization development in other standardization development organizations (SDOs).

8.1.4 They aim at in-depth discussion on the work programme of the SGs, that is, subsequent standardization projects, improvements in coordination or cooperation methods with other SDOs, etc.

8.1.5 The proposal for this type of workshop or seminar normally comes from the SG management teams and membership. Speakers are usually proposed and invited by internal experts.

8.1.6 Such events are in general collocated with SG meetings and the audience comprises mainly SG delegates and non-ITU-T members.

8.1.7 Some of these events are co-organized with the Telecommunication Development Bureau (BDT) to reply to WTSA Resolution 44 concerning the requirements to bridge the standardization gap.

8.1.8 These events have the following advantages:

a) they ensure that the workshop or seminar topic is closely relevant to SG work;

b) they are cost-effective in terms of organization, and avoid extra time/cost to SG delegates;

c) they have a guaranteed quantity and quality of participants; thus, a guaranteed quality of discussion.

8.2 Information focused

8.2.1 These events are focused on a new technology or emerging study area. By carrying them out, it is possible to review points of current development of technology, applications and services.

8.2.2 They are good opportunities for briefing SGs with information regarding standardization development in other SDOs.

8.2.3 The proposal for this type of workshop or seminar normally comes from the SG management teams and membership or from the technology watch function of TSB. Speakers are usually proposed and invited by internal experts.

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[1] Some of the events defined in this Recommendation may have a mixed nature, such as dissemination of information and promotion.

8.2.4 Such events are in general collocated with SG meetings and the audience comprises mainly SG delegates.

8.2.5 These events have the following advantages:

a) they ensure that the workshop or seminar topic is closely relevant to SG work;

b) they are cost-effective in terms of organization, and avoid extra time/cost to SG delegates;

c) they have a guaranteed quantity and quality of participants; thus, a guaranteed quality of discussion;

d) they could bring new ideas and work topics to relevant SGs.

8.3 Tutorial focused

8.3.1 These events are focused on ITU-T SG ongoing work or published Recommendations. Topics are selected according to local interest.

8.3.2 The main goal is to disseminate ITU-T technical knowledge and to promote the products of the work on standardization.

8.3.3 They are often co-organized with and funded by BDT and targeted at developing countries.

8.3.4 ITU-T membership or BDT normally initiates this type of event and proposes topics of interest. The Telecommunication Standardization Bureau (TSB) informs and relies on the related SG management team to look for and identify qualified speakers.

8.4 Promotion focused

8.4.1 These events are closely linked to promotion activities held outside ITU in order to promote ITU-T work and demonstrate the extent to which ITU contributes in a specific technical area.

8.4.2 Though this type of event is mostly suggested by one or more SGs, with specific venue and date, it might not be collocated with the SG meeting but rather associated with a non-ITU industry event related to its study topic.

9 Event identification

Once the event format and coordination are properly identified, all related information shall be made available to the Steering Committee (SC), who will be responsible for revising and issuing general advice on the strategic coordination, planning, organization, programme, implementation, drawing and follow-up actions. This SC's task shall be taken according to clause 10 below.

10 Guidelines and coordination requirements for the organization of ITU-T workshops and seminars

An appropriate working party within the Telecommunication Standardization Advisory Group (TSAG) shall undertake the responsibility for all activities and tasks regarding the organization of ITU-T workshops and

seminars. The following clauses indicate such duties, followed by those within ITU-T to assist TSAG in this undertaking.

10.1 Guidelines, results and exchange of experience

10.1.1 Study and provide conceptual and strategic guidelines for the preparation, running and evaluation of workshops and seminars.

Support: TSB.

10.1.2 Review the extent to which it is possible to follow the conceptual and strategic guidelines in the preparation, running and evaluation of each workshop or seminar.

Support: TSB.

10.1.3 Review the reports produced by each workshop or seminar that, *inter alia*, cover lessons learned and recommended follow-up actions. These reports should be produced no later than three months following the events. The reports should highlight the needs of developing countries, if any, and be disseminated as widely as possible.

Support: Study groups and TSB.

10.1.4 Contribute to the exchange of positive experience in the preparation, running and evaluation of the workshops and seminars.

Support: Study groups and TSB.

10.1.5 Encourage and evaluate the evolving implementation of the gender perspective in the programme of ITU-T workshops and seminars.

Support: TSB.

10.2 Coordination within ITU-T, and between ITU-T and the other two Sectors and the General Secretariat of ITU

10.2.1 Coordinate and assess the development of the ITU-T programme of workshops and seminars, taking into consideration budgetary implications and the needs of developing countries.

Support: TSB, in cooperation with BDT (e.g., ITU regional offices and centres of excellence), as applicable.

10.2.2 Coordinate and harmonize the programme of ITU-T workshops and seminars, in close cooperation with the other two Sectors and the General Secretariat of ITU.

Support: TSB, in cooperation with BDT, BR and the General Secretariat, as applicable.

10.2.3 Coordinate and harmonize the programme of ITU-T workshops and seminars, in order to optimize the participation of non-ITU-T members involved with technological innovation and technical change (e.g., academia, research organizations, and small and medium enterprises) in as many events as practicable.

Support: TSB.

10.2.4 Work in close cooperation with the study groups' management teams and TSB.

Support: TSB, in cooperation with BDT, as applicable.

10.2.5 Take into account relevant topics identified by the technology watch function of TSAG, in order to encourage the eventual organization of a workshop or seminar associated with them.

Support: TSB.

10.3 Coordination between ITU-T and relevant SDOs and regional organizations

Coordinate and harmonize the programme of ITU-T workshops and seminars, in close cooperation with relevant regional organizations.

Support: TSB.

10.4 Administrative nature

Provide a report on the activities addressed in clauses 10.1, 10.2 and 10.3, to each meeting of TSAG for consideration and appropriate action.

Support: TSB.

11 Basic requirements for the evaluation and follow-up actions of workshops and seminars

11.1 Depending consistently upon the use of information technology, ITU-T homepages are identified as a crucial item for improving the organization of workshops and seminars and giving valuable feedback to TSB and TSAG on current status. Therefore, the website is to be maintained by TSB, so that accurate information provided by workshop and seminar organizers and the SC is made public on the Internet to all interested parties.

11.2 The website shall provide a range of functionalities, including immediate access to past, current and forthcoming events. Data on events is to be shown in a standardized format and is to include the following basic requirements for the evaluation and follow-up actions of ITU-T workshops and seminars, as exemplified in Table 1:

- Title
- Place
- Start date
- End date
- Basic information
  - Contact
  - Invitation
  - Programme
  - Steering committee
  - Sponsorship
  - Introduction
  - Objective
- Type
  - Event format
  - Event coordination

– Content
  - Abstract
  - Presentations
  - Biography
– Report
– List of participants

Table 1 – Format of information for the evaluation and follow-up actions of workshops and seminars

Item	Title	Place	Start date	End date	Basic information							Type	Content			Report ****	List of participants
					Contact	Invitation*	Programme	Steering **	Sponsorship	Introduction	Objective		Abstract	Presentations	Biography		
#	<name of event>	<city>, <country>	dd/mm/yy	dd/mm/yy	√	√	√	√	√	√	√	***	√	√	√	√	√

* The invitation letter contains also information notes so that the wording should be: "Invitation letter and information notes", if not explicitly mentioned in a separated link, "Information notes or practical information".

** This column indicates if the steering committee information was available on the webpage of the event.

*** The indication of the "Type" of event implies that both the "event format" (workshop or seminar) and the "event coordination" (study group strategy, information, tutorial or promotion focused) shall be clearly identified (refer to clauses 7 and 8).

**** Three months is the expected period for the final report submission.

Supplement 2 to ITU-T A-series Recommendations

Guidelines on interoperability experiments

(2000)

1 Background

1.1 Study groups of the ITU Telecommunication Standardization Sector (ITU-T) have been doing their best to ensure interoperability of products made in accordance with ITU-T Recommendations. There is no better way to assess interoperability than to actually interoperate systems and equipment of various manufacturers. ITU-T has occasionally initiated interoperability experiments for specific projects in the past. Some examples are:

a) Signalling System No.7 field trial in the early 1980s (SG 11).

b) ISDN field trials in various places in the late 1980s (SG 11 and then SG 18).

c) Digital circuit multiplexing equipment (DCME) in the early 1990s (SG 15).

1.2 However, when interoperability experiments/testing have not been performed, users may have suffered from the lack of interoperability between products coming from different manufacturers. Moreover, manufacturers are not always members of ITU-T and develop their products only by reading relevant Recommendations.

2 Objective

The objective of these guidelines is to encourage interoperability experiments to be performed outside ITU-T and to facilitate information exchange between parties participating in such experiments and ITU-T study groups.

3 Guidelines

3.1 The interoperability experiments are to be performed outside ITU-T on a voluntary basis, self-governed, self-supporting and incurring no additional cost to ITU-T. Such interoperability experiments may therefore involve non ITU-T members as well.

3.2 The self-governance of interoperability experiments to be performed outside ITU-T means that parties participating in such an experiment should govern themselves by making rules of their own. ITU-T is in no way involved in such rule making.

3.3 ITU-T would like to ask the kind cooperation of its members participating in such an interoperability experiment to submit contributions to study groups based on the results of the experiment in order to improve the quality of Recommendations, e.g., by proposing text changes to remove ambiguities, etc.

3.4 Furthermore, ITU-T would like to ask the kind cooperation of its members participating in such an experiment to share information on the experiment at study group meetings as much as possible. Examples of information that would be useful to be shared are as follows:

– how should experiments be performed: experiment items, experiment methods, test equipment, experiment schedules, coordinator, etc;

– where are the experiments going to be conducted;

– how should experiment results be handled in order to submit contributions to ITU-T to improve the quality of Recommendations;

– identification of other activities in the same area and potential cooperation and work-sharing with them.

Supplement 3 to ITU-T A-series Recommendations

IETF and ITU-T collaboration guidelines

1 Introduction and scope

This document provides non-normative guidance to aid in the understanding of collaboration on standards development between the Telecommunication Standardization Sector of the International Telecommunication Union (ITU-T) and the Internet Engineering Task Force (IETF) of the Internet Society (ISOC). Early identification of topics of mutual interest will allow for constructive efforts between the two organizations based on mutual respect.

In the IETF, work is done in working groups (WGs), mostly through open, public mailing lists rather than face-to-face meetings. WGs are organized into areas, each area being managed by two co-area directors. Collectively, the area directors comprise the Internet Engineering Steering Group (IESG).

In the ITU-T, work is defined by study Questions which are worked on mostly through meetings led by rapporteurs (these are sometimes called "rapporteur's group" meetings). Questions are generally grouped within working parties (WPs) led by a WP chairman. Working parties report to a parent study group (SG) led by an SG chairman. Work may also be conducted in ITU-T focus groups (see clause 2.7).

To foster ongoing communication between the ITU-T and IETF, it is important to identify and establish contact points within each organization. Contact points may include:

1. **ITU-T study group chairman and IETF area director**

   An IETF area director is the individual responsible for overseeing a major focus of activity with a scope similar to that of an ITU-T study group chairman. These positions are both relatively long-term (of several years) and offer the stability of contact points between the two organizations for a given topic.

2. **ITU-T rapporteur and IETF working group chair**

   An IETF working group chair is an individual who is assigned to lead the work on a specific task within one particular area with a scope similar to that of an ITU-T rapporteur. These positions are working positions (of a year or more) that typically end when the work on a specific topic ends. Collaboration here is very beneficial to ensure the actual work gets done.

3. **Other contact points**

   It may be beneficial to establish additional contact points for specific topics of mutual interest. These contact points should be established early in the work effort, and in some cases the contact point identified by each organization may be the same individual. ITU-T has an additional level of management, the working party chairman. From time to time, it may be beneficial for this person to exchange views with IETF working group chairs and area directors.

NOTE – The current list of IETF area directors and working group chairs can be found in the IETF working group charters. The current ITU-T study group chairmen and rapporteurs are listed on the ITU-T study group web pages.

2 Guidance on collaboration

This clause describes how the existing processes within the IETF and ITU-T may be utilized to enable collaboration between the organizations.

2.1 How to interact on ITU-T or IETF work items

Study groups that have identified work topics that are related to the Internet protocol (IP) should evaluate the relationship with topics defined in the IETF. Current IETF working groups and their charters (IETF definition of the scope of work) are listed in the IETF archives (see clause 2.8.1).

A study group may decide that development of a Recommendation on a particular topic may benefit from collaboration with the IETF. The study group should identify this collaboration in its work plan (specifically in that of each Question involved), describing the goal of the collaboration and its expected outcome.

An IETF working group should also evaluate and identify areas of relationship with the ITU-T and document the collaboration with the ITU-T study group in its charter.

The following clauses outline a process that can be used to enable each group to be informed about the other's new work items.

2.1.1 How the ITU-T is informed about existing IETF work items

The responsibility is on individual study groups to review the current IETF working groups to determine if there are any topics of mutual interest. Working group charters and active Internet-Drafts can be found on the IETF web site (http://datatracker.ietf.org/wg/). If a study group identifies a common area of work, the study group leadership should contact both the IETF working group chair and the area director(s) responsible. This may be accompanied by a formal liaison statement (see clause 2.3).

2.1.2 How the IETF is informed about existing ITU-T work items

The IETF through its representatives will review the current work of the various study groups from time to time. Each ITU-T study group's web page on the ITU-T web site contains its current list of Questions as well as its current work programme. When an area or working group identifies a common area of work, the matter is referred to appropriate working group chairs and area directors, where they may consider sending a liaison statement to the appropriate study group.

2.1.3 How the ITU-T is informed about proposed new IETF work items

The IETF maintains a mailing list for the distribution of proposed new work items among standards development organizations. Many such items can be identified in proposed birds-of-a-feather (BoF) sessions, as well as draft charters for working groups. The IETF forwards all such draft charters for all new and revised working groups and BoF session announcements to the IETF new-work mailing list. An ITU-T mailing list is subscribed to this list. Leadership of study groups may subscribe to this ITU-T mailing list, which is maintained by the Telecommunication Standardization Bureau (TSB). Members of the SG-specific listname may include the SG chairman, SG vice-chairmen, working party chairmen, concerned rapporteurs,

other experts designated by the SG and the SG Counsellor. This will enable the SGs to monitor the new work items for possible overlap or interest to their study group. It is expected that this mailing list will see a few messages per month.

Each SG chairman, or designated representative, may provide comments on these charters by responding to the IESG mailing list at iesg@ietf.org clearly indicating their ITU-T position and the nature of their concern. Plain-text email is preferred on the IESG mailing list.

It should be noted that the IETF turnaround time for new working group charters can be as short as two weeks. As a result, the mailing list should be consistently monitored.

2.1.4 How the IETF is informed about ITU-T work items

The ITU-T accepts new areas of work through the creation or update of Questions and these can be found on the ITU-T study group web pages. In addition, the ITU-T work programme is documented on each ITU-T study group's web page on the ITU-T web site.

Study groups send updates to the IETF new-work mailing list as new Questions are first drafted or created, terms of reference for Questions are first drafted or updated, or otherwise when there is reason to believe that a particular effort might be of interest to the IETF. Area directors or WG chairs should provide comments through liaison statements or direct email to the relevant SG chairman in cases of possible overlap or interest.

2.2 Representation

ISOC, including its standards body IETF, is a Sector Member of the ITU-T. As a result, ISOC delegates are afforded the same rights as other ITU-T Sector Members (see clause 2.2.1). Conversely, ITU-T delegates may participate in the work of the IETF as representatives of the ITU-T (see clause 2.2.2). To promote collaboration, it is useful to facilitate communication between the organizations as further described below.

2.2.1 IETF recognition at ITU-T

Experts and representatives from the IETF that are chosen by IETF leadership normally participate in ITU-T meetings as ISOC delegates. The ISOC focal point will facilitate registration and verification of these people, as appropriate.

2.2.2 ITU-T recognition at ISOC/IETF

ITU-T study group chairmen can authorize one or more members to attend an IETF meeting as an official ITU-T delegate speaking authoritatively on behalf of the activities of the study group (or a particular rapporteur group). The study group chairman sends the ITU-T list of delegates by email to the working group chair, with a copy to the area directors, and also to the study group. According to IETF process, opinions expressed by any such delegate are given equal weight with opinions expressed by any other working group participant.

2.3 Communication outside of meetings

Informal communication between contact points and experts of both organizations is encouraged. However, formal communication from an ITU-T study group, working party or rapporteur group to an associated IETF contact point must be explicitly approved and identified as coming from the study group, working party, or rapporteur group, respectively. Formal liaison statements from the ITU-T to the IETF are transmitted according to the procedures described in RFC 4053 [2]. These liaison statements are placed by the IETF onto a liaison statements web page at https://datatracker.ietf.org/liaison/. An individual at the IETF is assigned responsibility for dealing with each liaison statement that is received. The name and contact information of the responsible person and any applicable deadline is listed with the links to the liaison statement on this web page.

Formal liaison statements from the Internet Architecture Board (IAB), the IESG, the IETF, an IETF working group or area to the ITU-T are generated, approved, and transmitted according to the procedures described in RFC 4053 [2] and Recommendation ITU-T A.1 [15]. Formal communication is intended to allow the sharing of positions between the IETF and the ITU-T outside of actual documents (as described in clause 2.5.1). This covers such things as comments on documents and requests for input.

2.4 Mailing lists

All IETF working groups and all ITU-T study group Questions have associated mailing lists.

In the IETF, the mailing list is the primary vehicle for discussion and decision-making. It is recommended that the ITU-T experts interested in particular IETF working group topics subscribe to and participate in these lists. IETF WG mailing lists are open to all subscribers. The IETF working group mailing list subscription and archive information are noted in each working group's charter. In the ITU-T, the TSB has set up formal mailing lists for Questions, working parties, and other topics within study groups (more detail can be found on the ITU-T web site). These mailing lists are typically used for ITU-T correspondence, including technical discussion, meeting logistics, reports, etc.

NOTE – Individual subscribers to this list must be affiliated with an ITU-T member or associate (at this time, there is no blanket inclusion of all IETF participants as members, however, as a member, the ISOC focal point can facilitate access by IETF technical experts, liaison representatives, or liaison managers).

IETF participants may subscribe to ITU-T focus group email lists if they are individuals from a country that is a member of ITU-T.

2.5 Document sharing

During the course of ITU-T and IETF collaboration, it is important to share working drafts and documents among the technical working groups. Initially proposed concepts and specifications typically can be circulated by email (often just repeating the concept and not including the details of the specification) on both the IETF and ITU-T mailing lists. In addition, working texts (or URLs) of draft Recommendations, Internet-Drafts, or RFCs may also be sent between the organizations as described below.

Internet-Drafts are available on the IETF web site. The ITU-T can make selected ITU-T documents at any stage of development available to the IETF by attaching them to a formal liaison statement. Although a communication can point to a URL where a non-ASCII document (e.g., Word) can be downloaded, attachments in proprietary formats to an IETF mailing list are discouraged. It should also be recognized that the official versions of all IETF documents are in ASCII.

2.5.1 Contributions and liaison statements from the IETF to ITU-T

IETF documents (e.g., Internet-Drafts) or URLs of those documents are most commonly transmitted to ITU-T study groups as liaison statements (see RFC 4053 [2]), but exceptionally can be submitted to a study group as a contribution from ISOC in accordance with Recommendation ITU-T A.2 [16]. In order to ensure that the IETF has properly authorized this, the IETF working group must agree that the specific drafts are of mutual interest; that there is a benefit in forwarding them to the ITU-T for review, comment and potential use; and that the document status is accurately represented in the cover letter. Once agreed, the appropriate area directors review the working group request and give approval. The rules of the IETF Trust are followed in these circumstances [3]. The contributions are then forwarded (with the noted approval) to the TSB for circulation as a contribution to the appropriate ITU-T study group. Material submitted to the ITU-T as an ISOC contribution is governed by clause 3.1.5 of Recommendation ITU-T A.1 [15]. Any such contribution will be made only after receiving necessary approval of owners of the work in question. In other circumstances, a liaison statement may be appropriate. See RFC 5378 [3] and Recommendation ITU-T A.1 [15] for more information.

2.5.2 Contributions and liaison statements from the ITU-T to IETF

An ITU-T study group or working party may send texts of draft new or revised Recommendations, clearly indicating their status, to the IETF as contributions in the form of liaison statements or Internet-Drafts. Internet-Drafts are IETF temporary documents that expire six months after being published. The study group or working party must decide that there is a benefit in forwarding them to the IETF for review, comment, and potential use. Terms of reference for rapporteur group meetings may authorize rapporteur groups to send working documents, in the form of Internet-Drafts, to the IETF.

If the study group or working party elects to transmit the text as an Internet-Draft, the document editor would be instructed to prepare the contribution in Internet-Draft format (in ASCII and optionally postscript format as per RFC 2223 [8]) and upload it via https://datatracker.ietf.org/idst/upload.cgi. Material submitted as an Internet-Draft or intended for inclusion in an Internet-Draft or RFC is governed by the rules set forth in RFCs 5378 [3], 3979 [4], and 4879 [5]. Alternatively, the study group, working party, or rapporteur group could attach the text to a formal liaison statement.

Both the rapporteur and the document editor should be identified as contacts in the contribution. The document should also clearly indicate the state of development in a particular ITU-T study group.

NOTE – Liaison statements and their attachments sent to the IETF are made publicly available on the IETF web site.

2.5.3 ITU-T and IETF

It is envisaged that the processes of clauses 2.5.1 and 2.5.2 will often be used simultaneously by both an IETF working group and an ITU-T study group to collaborate on a topic of mutual interest.

It is also envisaged that the outcome of the collaboration will be the documentation in full by one body and its referencing by the other (see clause 2.6 for details). That is, common or joint text is discouraged because of the current differences in procedures for document approval and revision. Where complementary work is being undertaken in both organizations that will result in Recommendations or RFCs, due allowance should be given to the differing perspectives, working methods, and procedures of the two organizations. That is, each organization should understand the other organization's procedures and strive to respect them in the collaboration.

2.6 Simple cross referencing

Recommendation ITU-T A.5 [6] describes the process for including references to documents of other organizations in ITU-T Recommendations. Recommendation ITU-T A.5 also addresses the situation where a study group or working party decides to incorporate the text of another organization into the text of a Recommendation, rather than referencing it. Information specific to referencing IETF RFCs is found at http://itu.int/ITU-T/go/ref-ietf-isoc.

Section 6.1.1 of RFC 2026 [7] describes the process for referencing other open standards (like ITU-T Recommendations) in IETF RFCs.

2.7 Preliminary work efforts

Both ITU-T and IETF provide mechanisms for early discussion of potential new work areas prior to the official start of work in an ITU-T study group or creation of an IETF working group.

Objectives, methods, and procedures for the creation and operation of ITU-T focus groups are defined in Recommendation ITU-T A.7 [17]. Focus groups are frequently created in new work areas where there is a need for deliverables to be produced on a specific topic within a short timeframe. IETF participants who are not members or associates of ITU-T may participate fully in the work of ITU-T focus groups if they are from a country that is a member of ITU-T.

In the IETF, guidance for BoF sessions is provided in RFC 5434 [13]. Efforts that have not yet reached the working group stage may be discussed in BOF sessions. These sessions typically gauge interest in pursuing creation of working groups. In some cases, these discussions continue on mailing lists.

2.8 Additional items

2.8.1 IETF information that may be useful to ITU-T participants

Information on IETF procedures may be found in the documents in the informative references, and URLs below.

NOTE – RFCs do not change after they are published. Rather, they are either obsoleted or updated by other RFCs. Such updates are tracked in the rfc-index.txt file.

Current list and status of all IETF RFCs:
ftp://ftp.ietf.org/rfc/rfc-index.txt

Current list and description of all IETF Internet-Drafts:
ftp://ftp.ietf.org/internet-drafts/1id-abstracts.txt

Current list of IETF working groups and their Charters: (includes area directors and chair contacts, mailing list information, etc.)
http://www.ietf.org/dyn/wg/charter.html

Current list of registered BOFs:
http://trac.tools.ietf.org/bof/trac/

RFC Editor pages about publishing RFCs, including available tools and lots of guidance:
http://www.rfc-editor.org/pubprocess.html

Current list of liaison statements:
https://datatracker.ietf.org/liaison/

IETF Intellectual Property Rights Policy and Notices:
http://www.ietf.org/ipr/

The Tao of the IETF – A Novice's Guide to the Internet Engineering Task Force:
http://www.ietf.org/tao.html

2.8.2 ITU-T information that may be useful to IETF participants

Information about the ITU-T can be found in the informative references and at the URLs below.

ITU-T Main page:
http://itu.int/ITU-T

List of all ITU-T Recommendations:
http://itu.int/itu-t/recommendations/

ITU-T study group main page for Study Group NN (where NN is the 2-digit SG number):
http://itu.int/ITU-T/studygroups/comNN/

Intellectual Property policies, forms and databases:
http://itu.int/en/ITU-T/ipr/Pages/default.aspx

Current list of active ITU-T focus Groups
http://itu.int/en/ITU-T/focusgroups/Pages/default.aspx

ITU-T Procedures including:

– WTSA Resolution 1, *Rules of procedure of the ITU Telecommunication Standardization Sector (ITU-T)*

– WTSA Resolution 2, *Study Group responsibility and mandates*
http://itu.int/publ/T-RES/en

Author's Guide for drafting ITU-T Recommendations:
http://itu.int/ITU-T/go/author-guide

Templates for contributions, ITU-T Recommendations, and liaison statements:
http://itu.int/ITU-T/studygroups/templates/index.html

3 References

3.1 Normative references

[1] Daigle, L., Ed., **and Internet Architecture Board,** *IAB Processes for Management of IETF Liaison Relationships*, BCP 102, RFC 4052, April 2005.

[2] Trowbridge, S., Bradner, S., and F. Baker, *Procedures for Handling Liaison Statements to and from the IETF*, BCP 103, RFC 4053, April 2005.

[3] Bradner, S., Ed., and J. Contreras, Ed., *Rights Contributors Provide to the IETF Trust*, BCP 78, RFC 5378, November, 2008.

[4] Bradner, S., Ed., *Intellectual Property Rights in IETF Technology*, BCP 79, RFC 3979, March 2005.

[5] Narten, T., *Clarification of the Third Party Disclosure Procedure in RFC* 3979, BCP 79, RFC 4879, April 2007.

[6] Recommendation ITU-T A.5 (2008), *Generic procedures for including references to documents of other organizations in ITU-T Recommendations*, International Telecommunication Union.

3.2 Informative references

[7] Bradner, S., *The Internet Standards Process – Revision 3*, BCP 9, RFC 2026, October 1996.

[8] Postel, J. and J. Reynolds, *Instructions to RFC Authors*, RFC 2223, October 1997.

[9] Brett, R., Bradner, S., and G. Parsons, *Collaboration between ISOC/IETF and ITU-T*, RFC 2436, October 1998.

[10] Fishman, G. and S. Bradner, *Internet Engineering Task Force and International Telecommunication Union – Telecommunications Standardization Sector Collaboration Guidelines*, RFC 3356, August 2002.

[11] Hovey, R. and S. Bradner, S., *The Organizations Involved in the IETF Standards Process* , BCP 11, RFC 2028, October, 1996.

[12] Bradner, S., *IETF Working Group Guidelines and Procedures*, BCP 25, RFC 2418, September 1998.

[13] Narten, T., *Considerations for Having a Successful Birds-of-a-Feather (BOF) Session*, RFC 5434, February 2009.

[14] Alvestrand, H., *A Mission Statement for the IETF*, BCP 95, RFC 3935, October 2004.

[15] Recommendation ITU-T A.1 (2008), *Work methods for study groups of the ITU Telecommunication Standardization Sector (ITU-T)*, International Telecommunication Union.

[16] Recommendation ITU-T A.2 (2008), *Presentation of contributions to the ITU-T*, International Telecommunication Union.

[17] Recommendation ITU-T A.7 (2008), *Focus groups: Working methods and procedures*, International Telecommunication Union.

[18] Recommendation ITU-T A.8 (2008), *Alternative approval process for new and revised ITU-T Recommendations*, International Telecommunication Union.

PART 3

ITU Telecommunication Standardization Sector study groups, TSAG and other groups established by WTSA-12 and chairmen and vice-chairmen appointed by WTSA-12

Study Group 2 – Operational aspects of service provision and telecommunication management

Chairman:	Mr Sherif GUINENA	(EGY)[1]
Vice-Chairmen:	Mr Abdullah AL-MUBADAL	(ARS)
	Mr Saif BIN GHELAITA	(UAE)
	Mr Nazim JAFAROV	(AZE)
	Mr James KILABA	(TZA)
	Mr Jeong Sik PARK	(KOR)
	Mr Bruno RAMOS	(B)
	Mr Phil RUSHTON	(UK)
	Ms Jie ZHANG	(CHN)

Study Group 3 – Tariff and accounting principles including related telecommunication economic and policy issues

Chairman:	Mr Seiichi TSUGAWA	(J)
Vice-Chairmen:	Ms Biendjui Joséphine ADOU	(CTI)
	Mr Facundo Fernández BEGNI	(ARG)
	Mr Byoung Nam LEE	(KOR)
	Mr Leslie MARTINKOVICS	(USA)
	Mr Raynold MFUNGAHEMA	(TZA)
	Mr Ahmed SAID	(EGY)
	Mr Dominique WURGES	(F)
	Mr Alexander V. YAKOVENTO	(RUS)

Study Group 5 – Environment and climate change

Chairman:	Mr Ahmed ZEDDAM	(F)
Vice-Chairmen:	Mr Tariq ALAMRI	(ARS)
	Mr Nasser ALMARZOUQI	(UAE)
	Mr Héctor CARRIL	(ARG)
	Mr Sam Young CHUNG	(KOR)
	Mr Flavio CUCCHIETTI	(I)
	Mr Keith DICKERSON	(UK)
	Ms Fatoumata S. DICKO	(MLI)
	Mr Guy-Michel KOUAKOU	(CTI)
	Mr Josef OPITZ	(GER)
	Mr Li XIAO	(CHN)

[1] The names of the Member States that correspond to the abbreviations in this document may be found in the ITU Global Directory (http://www.itu.int/online/mm/scripts/membstat).

Study Group 9 – Television and sound transmission and integrated broadband cable networks

Chairman:	Mr Arthur WEBSTER	(USA)
Vice-Chairmen:	Mr Antoine BOUSTANI	(LBN)
	Mr Ayanzhan Shulembaevich BULDYBAYEV	(KAZ)
	Mr Satoshi MIYAJI	(J)
	Mr Habib TALL	(GUI)
	Mr Dong WANG	(CHN)

Study Group 11 – Signalling requirements, protocols and test specifications

Chairman:	Mr Wei FENG	(CHN)
Vice-Chairmen:	Mr Isaac BOATENG	(GHA)
	Mr Martin BRAND	(AUS)
	Mr Shin-Gak KANG	(KOR)
	Mr Kaoru KENYOSHI	(J)
	Mr Dmitry TARASOV	(RUS)
	Mr Horacio Villalobos TLATEMPA	(MEX)

Study Group 12 – Performance, quality of service and quality of experience

Chairman:	Mr Kwame BAAH-ACHEAMFUOR	(GHA)
Vice-Chairmen:	Mr Paul BARRETT	(UK)
	Mr Vincent BARRIAC	(F)
	Mr Gamal Amin ELSAYED	(SDN)
	Mr Hyung-soo KIM	(KOR)
	Mr Al MORTON	(USA)
	Mr Feng QI	(CHN)
	Mr José Guadalupe Rojas RAMÍREZ	(MEX)
	Mr Akira TAKAHASHI	(J)
	Mr Hassan TALIB	(MRC)

Study Group 13 – Future networks including cloud computing, mobile and next-generation networks

Chairman:	Mr Chae-Sub LEE	(KOR)
Vice-Chairmen:	Mr Mohammed AL RAMSI	(UAE)
	Mr Simon BUGABA	(UGA)
	Mr Jamil CHAWKI	(F)
	Mr Ahmed EL RAGHY	(EGY)
	Mr Yoshinori GOTO	(J)
	Mr Leo LEHMANN	(SUI)
	Ms Huilan LU	(USA)
	Mr Slaheddine MAAREF	(TUN)
	Mr Konstantin TROFIMOV	(RUS)
	Mr Heyuan XU	(CHN)

Study Group 15 – Networks, technologies and infrastructures for transport, access and home

Chairman:	Mr Steve TROWBRIDGE	USA)
Vice-Chairmen:	Mr Ghani ABBAS	(UK)
	Mr Noriyuki ARAKI	(J)
	Mr Fahad ALFALLAJ	(ARS)
	Mr V.B. KATOK	(UKR)
	Mr Dan LI	(CHN)
	Mr Francesco MONTALTI	(I)
	Mr Atilio Eduardo REGGIANI	(B)
	Mr Jeong-Dong RYOO	(KOR)
	Mr Helmut SCHINK	(D)

Study Group 16 – Multimedia coding, systems and applications

Chairman:	Mr Yushi NAITO	(J)
Vice-Chairmen:	Mr Gaby DANIEL	(LBN)
	Mr Mohannad EL-MEGHARBEL	(EGY)
	Mr Khusan ISAEV	(UZB)
	Mr Seong-Ho JEONG	(KOR)
	Mr Paul JONES	(USA)
	Mr Harald KULLMANN	(D)
	Mr Zhong LUO	(CHN)
	Mr Ntsibane NTLATLAPA	(AFS)

Study Group 17 – Security

Chairman:	Mr Arkadiy KREMER	(RUS)
Vice-Chairmen:	Mr Khalid BELHOUL	(UAE)
	Mr Antonio C GUIMARÃES TEIXEIRA	(B)
	Mr Mohamed Mohamed Khair Almobark ELHAJ	(SDN)
	Mr Zhaoji LIN	(CHN)
	Mr Patrick MWESIGWA	(UGA)
	Mr Koji NAKAO	(J)
	Mr Mario Germán Fromow RANGEL	(MEX)
	Mr Sacid SARIKAYA	(TUR)
	Mr Heung-Youl YOUM	(KOR)

TSAG – Telecommunication Standardization Advisory Group

Chairman:	Mr Bruce GRACIE	(CAN)
Vice-Chairmen:	Mr Fabio BIGI	(I)
	Mr Mohammed GHEYATH	(UAE)
	Mr Vladimir Markovich MINKIN	(RUS)
	Mr Matano NDARO	(KEN)
	Ms Monique MORROW	(USA)
	Ms Weiling XU	(CHN)

Other groups established by WTSA-12:

Study Group 3 – Regional Group for Africa

Chairmen:	Mr Abossé AKUE-KPAKPO	(TGO)
	Mr Saliou TOURE	(SEN)
Vice-Chairmen:	Biendjui Joséphine ADOU	(CTI)
	Mr Raynold MFUNGAHEMA	(TAN)
	Ms Pauline TSAFAK DJOUMESSI	(CME)

Study Group 3 – Regional Group for Asia and Oceania

Chairman:	Mr Byoung Nam LEE	(KOR)
Vice-Chairmen:	Ms Otgonchimeg BUYANJARGAL	(MON)
	Mr Yasunori MATSUDA	(J)

Study Group 3 – Regional Group for Latin America

Chairman:	Mr Tito LOPEZ	(PRG)
Vice-Chairmen:	Ms Cynthia REDDOCK-DOWNES	(TRD)

Standardization Committee for Vocabulary

Chairman:	Mr Imad HOBALLAH	(LBN)
Vice-Chairmen:	Ms Marie-Thérèse ALAJOUANINE	(F)
	Ms Xianqiong HUANG	(CHN)
	Mr Ángel LEON-ALCADE	(E)
	Mr Oleg MIRONNIKOV	(RUS)
	Mr Paul NAJARIAN	(USA)
	Mr Sami Hassan OMER SALEH	(SDN)

Review Committee

Chairman:	Mr Yoichi MAEDA	(J)
Vice-Chairmen:	Mr Rainer LIEBLER	(D)
	Mr Jim MACFIE	(CAN)
	Mr Fabien MBENG EKOGHA	(GBN)
	Mr Albert NALBANDIAN	(ARM)
	Mr Musab ABDULLAH	(BHR)
	Mr Ki-Shik PARK	(KOR)

PART 4

Questions approved for study by the
ITU Telecommunication Standardization Sector

Study Group 2 – Operational aspects of service provision and telecommunication management

Questions	Title
Q1/2	Application of numbering, naming, addressing and identification plans for fixed and mobile telecommunication services
Q2/2	Routing and interworking plan for fixed and mobile networks
Q3/2	Service and operational aspects of telecommunications, including service definition
Q4/2	Human factors related issues for improvement of the quality of life through international telecommunications
Q5/2	Requirements, priorities and planning for telecommunication management and OAM Recommendations
Q6/2	Management architecture and security
Q7/2	Interface specifications and specification methodology

Study Group 3 – Tariff and accounting principles including related telecommunication economic and policy issues

Questions	Title
Q1/3	Development of charging and accounting/settlement mechanisms for international telecommunication services using next-generation networks (NGNs) and any possible future development, including adaptation of existing ITU-T D-series Recommendations to the evolving user needs
Q2/3	Development of charging and accounting/settlement mechanisms for international telecommunication services, other than those studied in Question 1/3, including adaptation of existing ITU-T D-series Recommendations to the evolving user needs
Q3/3	Study of economic and policy factors relevant to the efficient provision of international telecommunication services
Q4/3	Regional studies for the development of cost models together with related economic and policy issues
Q5/3	Terms and definitions for Recommendations dealing with tariff and accounting principles

Study Group 5 – Environment and climate change

Questions	Title
Q1/5	Copper cables, networks and fibre-optic connection hardware for broadband access
Q2/5	Protective components and assemblies
Q3/5	Interference to telecommunication networks due to power systems and electrified railway systems
Q4/5	Resistibility and safety in telecommunications
Q5/5	Lightning protection and earthing of telecommunication systems
Q6/5	EMC issues arising from the convergence of IT and communication equipment
Q7/5	Human exposure to electromagnetic fields (EMFs) due to radio systems and mobile equipment
Q8/5	EMC issues in home networks
Q9/5	Generic and product family EMC recommendations for telecommunication equipment
Q10/5	Security of telecommunication and information systems concerning the electromagnetic environment
Q11/5	EMC requirements for the information society
Q12/5	Guides and terminology on environment and climate change
Q13/5	Environmental impact reduction including e-waste
Q14/5	Setting up a low-cost sustainable telecommunication infrastructure for rural communications in developing countries
Q15/5	ICTs and adaptation to the effects of climate change
Q16/5	Leveraging and enhancing the ICT environmental sustainability
Q17/5	Energy efficiency for the ICT sector and harmonization of environmental standards
Q18/5	Methodologies for the assessment of environmental impact of ICT
Q19/5	Power feeding systems

Study Group 9 – Television and sound transmission and integrated broadband cable networks

Questions	Title
Q1/9	Transmission of television and sound programme signal for contribution, primary distribution and secondary distribution
Q2/9	Measurement and control of the end-to-end quality of service (QoS) for advanced television technologies, from image acquisition to rendering, in contribution, primary distribution and secondary distribution networks
Q3/9	Methods and practices for conditional access, protection against unauthorized copying and against unauthorized redistribution ("redistribution control" for digital cable television distribution to the home)
Q4/9	Software components application programming interfaces (APIs), frameworks and overall software architecture for advanced content distribution services within the scope of Study Group 9
Q5/9	Functional requirements for residential gateway and set-top box for the reception of advanced content distribution services
Q6/9	Digital programme delivery controls for multiplexing, switching and insertion in compressed bit streams
Q7/9	Cable television delivery of digital services and applications that use Internet protocol (IP) and/or packet-based data
Q8/9	The IP enabled multimedia applications and services for cable television networks enabled by converged platforms
Q9/9	Requirements for advanced service capabilities for broadband cable home networks
Q10/9	Requirements, methods, and interfaces of the advanced service platforms to enhance the delivery of sound, television, and other multimedia interactive services over cable television network
Q11/9	Transmission of multichannel analogue and/or digital television signals over optical access networks
Q12/9	Objective and subjective methods for evaluating perceptual audiovisual quality in multimedia services within the terms of Study Group 9
Q13/9	Work programme, coordination and planning

Study Group 11 – Signalling requirements, protocols and test specifications

Questions	Title
Q1/11	Signalling and protocol architectures in emerging telecommunication environments
Q2/11	Signalling requirements and protocols for service and application in emerging telecommunication environments
Q3/11	Signalling requirements and protocol for emergency telecommunications
Q4/11	Signalling requirements and protocols for bearer and resource control in emerging telecommunication environments
Q5/11	Protocol procedures relating to services provided by broadband network gateways
Q6/11	Protocol procedures relating to specific services over IPv6
Q7/11	Signalling and control requirements and protocols for network attachment supporting multi-screen service, future networks, and M2M
Q8/11	Guidelines for implementations of signalling requirements and protocols
Q9/11	Protocols supporting distributed, smart service networking and end-to-end multicast
Q10/11	Protocols and networks test specifications
Q11/11	Service and networks benchmarking measurements
Q12/11	Internet of things test specifications
Q13/11	Monitoring parameters for protocols and emerging networks
Q14/11	Cloud interoperability testing
Q15/11	Testing as a service (TAAS)

Study Group 12 – Performance, quality of service and quality of experience

Questions	Title
Q1/12	SG12 work programme and QoS/QoE coordination in ITU–T
Q2/12	Definitions, guides and frameworks related to QoS/QoE
Q3/12	Speech transmission characteristics of communication terminals for fixed circuit-switched, mobile and packet-switched (IP) networks
Q4/12	Hands-free communication and user interfaces in vehicles
Q5/12	Telephonometric methodologies for handset and headset terminals
Q6/12	Analysis methods using complex measurement signals including their application for speech enhancement techniques and hands-free telephony
Q7/12	Methods, tools and test plans for the subjective assessment of speech, audio and audiovisual quality interactions
Q8/12	E-Model extension in wideband transmission and future telecommunication and application scenarios
Q9/12	Perceptual-based objective methods for voice, audio and visual quality measurements in telecommunication services
Q10/12	Conferencing and telemeeting assessment
Q11/12	Performance interworking and traffic management for next-generation networks
Q12/12	Operational aspects of telecommunication network service quality
Q13/12	QoE, QoS and performance requirements and assessment methods for multimedia
Q14/12	Development of parametric models and tools for multimedia quality assessment
Q15/12	Objective assessment of speech and sound transmission performance quality in networks
Q16/12	Framework for diagnostic functions and their interaction with external objective models predicting media quality
Q17/12	Performance of packet-based networks and other networking technologies

Study Group 13 – Future networks including cloud computing, mobile and next-generation networks

Questions	Title
Q1/13	Service scenarios, deployment models and migration issues based on convergence services
Q2/13	Requirements for NGN evolution (NGN-e) and its capabilities including support of IoT
Q3/13	Functional architecture for NGN evolution (NGN-e) including support of IoT
Q4/13	Identification of evolving IMT systems and beyond
Q5/13	Applying IMS and IMT in developing country mobile telecom networks
Q6/13	Requirements and mechanisms for network QoS enablement
Q7/13	Deep packet inspection in support of service/application awareness in evolving networks
Q8/13	Security and identity management in evolving managed networks
Q9/13	Mobility management
Q10/13	Coordination and management for multiple access technologies (multi-connection)
Q11/13	Evolution of user-centric networking and services, including interworking
Q12/13	Distributed service networking
Q13/13	Requirements, mechanisms and frameworks for packet data network evolution
Q14/13	Service-aware networking in future networks
Q15/13	Data-aware networking in future networks
Q16/13	Environmental and socio-economic sustainability in future networks and early realization of FN
Q17/13	Cloud computing ecosystem, general requirements, and capabilities
Q18/13	Cloud functional architecture, infrastructure and networking
Q19/13	End-to-end cloud computing service and resource management

Study Group 15 – Networks, technologies and infrastructures for transport, access and home

Questions	Title
Q1/15	Coordination of access and home network transport standards
Q2/15	Optical systems for fibre access networks
Q3/15	General characteristics of transport networks
Q4/15	Broadband access over metallic conductors
Q5/15	Characteristics and test methods of optical fibres and cables
Q6/15	Characteristics of optical systems for terrestrial transport networks
Q7/15	Characteristics of optical components and subsystems
Q8/15	Characteristics of optical fibre submarine cable systems
Q9/15	Transport network protection/restoration
Q10/15	Interfaces, interworking, OAM and equipment specifications for packet-based transport networks
Q11/15	Signal structures, interfaces, equipment functions, and interworking for transport networks
Q12/15	Transport network architectures
Q13/15	Network synchronization and time distribution performance
Q14/15	Management and control of transport systems and equipment
Q15/15	Communications for smart grid
Q16/15	Outside plant and related indoor installation
Q17/15	Maintenance and operation of optical fibre cable networks
Q18/15	Broadband in-premises networking

Study Group 16 – Multimedia coding, systems and applications

Questions	Title
Q1/16	Multimedia systems, terminals and data conferencing
Q2/16	Packet-based conversational multimedia systems and functions
Q3/16	Multimedia gateway control architectures and protocols
Q5/16	Telepresence systems
Q6/16	Visual coding
Q7/16	System and coordination aspects of media coding
Q10/16	Speech and audio coding and related software tools
Q13/16	Multimedia application platforms and end systems for IPTV
Q14/16	Digital signage systems and services
Q15/16	Voiceband signal discrimination and modem/facsimile terminal protocols
Q16/16	Speech enhancement functions in signal processing network equipment
Q18/16	Implementation and interaction aspects of signal processing network equipment/terminals
Q20/16	Multimedia coordination
Q21/16	Multimedia framework, applications and services
Q25/16	IoT applications and services
Q26/16	Accessibility to multimedia systems and services
Q27/16	Vehicle gateway platform for telecommunication/ITS services/applications
Q28/16	Multimedia framework for e-health applications

Study Group 17 – Security

Questions	Title
Q1/17	Telecommunication/ICT security coordination
Q2/17	Security architecture and framework
Q3/17	Telecommunication information security management
Q4/17	Cybersecurity
Q5/17	Countering spam by technical means
Q6/17	Security aspects of ubiquitous telecommunication services
Q7/17	Secure application services
Q8/17	Cloud computing security
Q9/17	Telebiometrics
Q10/17	Identity management architecture and mechanisms
Q11/17	Generic technologies to support secure applications
Q12/17	Formal languages for telecommunication software and testing

PART 5

Reports and documents of the assembly

CONTENTS

Section 1 – Plenary reports

1.1 – Report of the opening ceremony and the first and second plenary meetings

Chairman: H.E Mohamed Al Ghanim (United Arab Emirates; Dean of the Assembly)
Later: Mr Mohammed GHEYATH (United Arab Emirates)

INAUGURAL CEREMONY

(Tuesday, 20 November 2012, 1100 – 1130 hours)

H.E. Mohamed Al Ghanim, Director General of the Telecommunications Regulatory Authority of the United Arab Emirates, welcomed the delegates to the World Telecommunication Standardization Assembly in Dubai, United Arab Emirates. His welcome address can be found in Annex 1.

ITU Secretary-General, **Dr Hamadoun Touré,** welcomed the delegates to UAE. His opening address is given in Annex 2.

FIRST AND SECOND PLENARY MEETINGS

(Tuesday, 20 November 2012, 1130 – 1230 hours & 1430 – 1730 hours)

1 Opening of the 1st Plenary

ITU Secretary-General, Dr Hamadoun Touré, announced that according to the 'Rules of Procedure of Conferences, Assemblies and Meetings' of the Union, the United Arab Emirates appointed H.E Mohamed Al Ghanim, Director General of the Telecommunications Regulatory Authority of the United Arab Emirates, to open the Assembly. H.E. Mohamed Al Ghanim declared open WTSA-12.

2 Approval of the agenda

The agenda (ADM/01) was adopted.

3 Election of the Chairman of the Assembly

H.E. Mohamed Al Ghanim announced that UAE has proposed Mr Mohammed Gheyath, Executive Director, Policies & Programs/Information & E-Government Sector, Telecommunications Regulatory Authority, United Arab Emirates, as Chairman of the Assembly. Mr Mohammed Gheyath was elected Chairman of the Assembly by acclamation.

4 Address by the Chairman of the Assembly

The WTSA-12 Chairman delivered his address (Annex 3).

5 Address by the Director of the Telecommunication Standardization Bureau (TSB)

The Director of TSB delivered his address (Annex 4).

6 Election of the Vice-Chairmen of the Assembly

Plenary appointed the WTSA Vice-Chairmen by acclamation (DT/7).

7 Establishment of Committees (Structure of the Assembly)

The Assembly approved the structure of the Assembly and the mandates of the Committees and Working Groups of the Committees (DT/4).

8 Election of Committee and Working Group Chairmen and Vice-Chairmen

The Assembly elected the Chairmen and Vice-Chairmen of the Committees and Working Groups by acclamation (DT/7).

9 Secretariat of WTSA-12

The Chairman informed the meeting of the Secretariat of WTSA ((DT/5).

10 List of contributions/proposals and allocation of documents to Committees and Working Groups of the Committees (Document DT/1)

Plenary approved DT/1.

11 Draft time management plan (Document DT/3)

Plenary approved DT/3(Rev.2).

12 General information on the secretariat and organization of the Assembly

The secretariat will inform the delegates about practical aspects of the Assembly as needed.

13 Tribute to deceased delegates

The Assembly observed a minute of silence in tribute to the delegates deceased since WTSA-08 (Document 67).

14 Expression of appreciation to retired delegates

The Chairman thanked the retired delegates (Document 68).

15 Report of the Director of TSB

Mr Malcolm Johnson, Director of TSB presented "ITU-T Highlight 2009 – 2012" (Document 27) and slide presentation at http://www.itu.int/en/ITU-T/wtsa12/Pages/presentations.aspx) and introduced the WTSA Action Plan (Document 28). Plenary congratulated the Director for the presentation and what had been accomplished over the past four years. The Director acknowledged the excellent work of the TSB staff who are both skilled and dedicated.

16 Report on the outcome of the Global Standards Symposium (GSS)

H.E. Mr Nasser Bin Abood Al Falasi, Chief Government Relations & Communications Officer, Etisalat Group, presented the conclusions of the GSS (Document 69).

17 Report of the Telecommunication Standardization Advisory Group to WTSA-12

The Chairman of TSAG, Mr Bruce Gracie, presented Documents 22, 23, 24 and 25.

Plenary noted the reports in 22 and 25 while deferring the proposals in 23 and 24 for consideration by the respective Committees. Plenary thanked the TSAG chairman for the excellent work accomplished.

18 Approval of draft ITU-T Recommendations

Plenary approved Recommendation ITU-T D.195 (36).

Plenary approved Recommendation ITU-T Y.2770 (30, 60(Rev.1)) with the addition of the following text at the end of the fourth paragraph of the Scope-section, "The mechanism described in this ITU-T recommendation may not be applicable to international correspondence in order to ensure the secrecy and sovereign national legal requirements placed upon Telecommunications, and the ITU Constitution and Convention", and the removal of all appendices.

Plenary approved Recommendation ITU-T G.9901 (48). The Study Group 15 Chairman and the Director of TSB confirmed that there has been very close collaboration with ITU-R on ITU-T G.9901.

Plenary approved Recommendation ITU-T G.8113.1 and ITU-T G.8113.2 (40, 35A14, 47). Study Group 15 Chairman, Mr Yoichi Maeda, said that IETF committed to provide a code point as soon as ITU-T G.8113.1 was approved and that he, as SG15 Chairman, would be sending immediately a liaison to IETF to inform them about the approval. He said that he was expecting that IETF would assign a code point within the next few days.

Plenary agreed to postpone the approval of ITU-T G.9980 (41) to the next Plenary on Friday.

19 Presentations of the ITU-T study group chairmen and expression of appreciation to the study group officials

The ITU-T Study Group chairmen gave summaries of the achievements of their study groups in the 2009-2012 study period (Documents 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19, supplemented by the slide presentations at http://www.itu.int/en/ITU-T/wtsa12/Pages/presentations.aspx). The TSB Director on behalf of the ITU-T membership expressed his thanks to the study group chairmen for their outstanding work accomplished during the study period and handed out certificates of appreciation to the study group chairmen and the chairman of TSAG:

- Ms Marie-Thérèse Alajouanine ITU-T Study Group 2
- Mr Kishih Park ITU-T Study Group 3
- Mr Ahmed Zeddam ITU-T Study Group 5
- Mr Arthur Webster ITU-T Study Group 9
- Mr Wei Feng ITU-T Study Group 11
- Mr Charles A.Dvorak ITU-T Study Group 12
  (represented by Vice-Chairman, Mr Akira Takahashi)
- Mr Chaesub Lee ITU-T Study Group 13
- Mr Yoichi Maeda ITU-T Study Group 15
- Mr Yushi Naito ITU-T Study Group 16
- Mr Arkadiy Kremer ITU-T Study Group 17
- Mr Bruce Gracie ITU-T TSAG

The ITU Secretary-General also expressed his appreciation to the ITU-T study group chairmen.

20 Any other business

There was no other business.

Annex 1

Opening address at WTSA-12
Mohammad Bin Ahmad Al Qamzi,
Chairman of the Telecommunication Regulatory Authority of the United Arab Emirates
Delivered by Mr Mohamed Al Ghanim,
Director General of the Telecommunications Regulatory Authority of the United Arab Emirates
(20 November 2012)
Dubai, United Arab Emirates
World Telecommunication Standardization Assembly

In the Name of God, the Merciful and Compassionate:

Your Excellency Dr Hamadoun Touré, Secretary-General, International Telecommunication Union,

Mr Houlin Zhao, Deputy Secretary-General, ITU,

Mr Malcolm Johnson, Director, Telecommunication Standardization Sector,

Mr Brahima Sanou, Director, ITU Telecommunication Development Bureau,

Ladies and gentlemen,

May the peace and blessings of God be upon you.

On behalf of the State of the United Arab Emirates and the Telecommunications Regulatory Authority, I am honoured to welcome you all to the World Telecommunication Standardization Assembly (WTSA-12) being held in the UAE from 20 to 29 November – four years after the assembly was held in South Africa and the first time it has ever been held in the Middle East.

At the outset, allow me to thank ITU, represented by the Secretary-General, Dr Hamadoun Touré, and its Member States, for the great confidence they have shown in us by inviting us to host this most prominent global event organized by ITU. We trust that our hosting will at all times be more than up to standard.

Ladies and gentlemen,

The UAE is proud to host this major event. It is an expression of the role and position enjoyed by the country in the sphere of telecommunications at regional and, indeed, global level. Furthermore, it is a reflection of the tremendous importance accorded to this sphere by the Government and leadership of the UAE, which has not been slow to grasp the significance of information and communication technologies (ICT) in the march of progress and development.

The major ICT initiatives undertaken by our country are the most eloquent expression of its commitment to building a society based on telecommunications and ICTs. There are many outstanding examples, and space does not permit me to refer to them all here. However, I would single out for mention our modern ICT infrastructure. It has the capacity to embrace all the changes and developments which the telecommunication/ICT sector may experience, and has enabled us to make the transition to next-generation networks with flexibility and ease.

Ladies and gentlemen,

The rapid development of the world's telecommunication industry requires us to be in a state of constant readiness to intervene at the right time, by issuing recommendations on technical, operational and tariff issues and by formulating flexible administrative procedures that can facilitate adjustment to change and help all Member States to adapt to developments in the interests of balanced growth in telecommunications.

On another front, our assembly takes on special importance in view of the nature of the phase which the world is currently going through and the pressing demands it imposes. These demands make the formulation of appropriate telecommunication policies a top priority, fundamental to confronting the challenges we face and achieving recovery from the economic crisis that has rocked global markets. This is especially important in view of the growth and development of this industry and its impact on all areas of life.

Accordingly, from this podium, I call upon everyone to make sincere efforts and work with ITU to honour the commitments we have assumed, and to overcome all the obstacles that prevent us from building a connected world in which prosperity and well-being prevail.

Ladies and gentlemen,

WTSA-12 is the third in a series of events organized by ITU in the UAE. I wish this event every success in dealing with the challenges facing the sector and in turning obstacles into incentives for development and growth. I am spurred on by the hope that this event will represent a decisive turning point for telecommunication standardization, and that the way in which people communicate with one other will be transformed by the recommendations and resolutions that emerge from our assembly.

In conclusion, I welcome you once again to the United Arab Emirates. God willing, all the logistical requirements we have provided for the success of your proceedings will leave you with a good impression of us.

Thank you.

Annex 2
Opening Remarks to WTSA-12
Dr Hamadoun I. Touré, Secretary-General, ITU
(20 November 2012)
Dubai, United Arab Emirates

Excellencies, Ministers, Ambassadors,
Distinguished colleagues,
Ladies and gentlemen,

Welcome to the extraordinary city of Dubai for the opening of the World Telecommunication Standardization Assembly 2012.

Dubai is one of the world's most modern cities in the world; a city which has risen from the sands of the Gulf Region to become a magnificent symbol of Emirati culture and progress.

It has transformed itself into one of the Middle East's most important economic centres and is one of the greatest symbols of human achievement in the modern world.

Through visionary leadership and investment in high-quality infrastructure, Dubai and the entire region has committed to harnessing the power and use of ICTs in all facets of its development and vision for the future.

The United Arab Emirates is a great working example of the true power of ICTs for economic growth, social development and modernization in the 21st century.

ICT has become a driving force for growth in the UAE. It is a fundamental component used in creating employment; in attracting skilled labour into the region; and in transforming public services by increasingly taking advantage of new technologies.

We at ITU are proud to hold this World Telecommunication Standardization Assembly in Dubai, and I would like to thank the Telecommunications Regulation Authority for the wonderful facilities and the efficient staff and support they have provided.

Ladies and gentlemen,

The ICT sector is characterized by its fast-paced nature, innovation, competition, collaboration and dynamic change. And we all know that standards are at the heart of all ICTs.

The mandate of the WTSA – which gathers every four years – is set forth in Article 18 of the ITU Constitution.

This includes bearing in mind the particular needs of all its members, to fulfil the purposes of ITU relating to telecommunication standardization.

This is achieved by studying technical, operating and tariff questions, and adopting recommendations on them with a view to standardizing telecommunications on a worldwide basis.

Since the most recent WTSA, held in Johannesburg in 2008, tremendous strides have been made towards the further development of the information society.

We have seen mobile telephony become almost ubiquitous, with over six billion mobile cellular subscriptions worldwide, and well over 100 countries now have mobile penetration rates of over 100%.

The next big challenge is clearly to replicate the mobile miracle for broadband, to ensure that all the world's people have affordable and equitable access to advanced communications services.

This is why ITU and UNESCO set up the Broadband Commission for Digital Development – to advocate for increased global broadband infrastructure rollout and access, and to help accelerate progress towards meeting the Millennium Development Goals.

Excellencies, ladies and gentlemen,

The key outcomes and procedures that have been implemented since WTSA-08 have continued to reinforce the architecture of standards and regulations that underpin the world's communications networks.

As a result, ITU continues to be the leading global standardization body.

Five hundred million customers around the world are now connected using broadband equipment based on the work of ITU's Standardization Sector, and 95% of all international traffic runs over optical fibre, the standards for which are based on ITU's work.

Over the past four years, ITU has also strengthened its resolve to bridge the standardization gap.

Ladies and gentlemen,

Standardization and interoperability are at the core of Information Communication Technologies.

They are essential to ensure that the host of different devices, communication networks and protocols can communicate and work in parallel to deliver services to end-users with reliability, affordability, and without delay no matter their circumstances.

In this regard, from a technical perspective, ITU has been the driving force pushing forward the frontiers of the future ICT.

These new frontiers of ICT include cloud computing, the Internet of things, intelligent transport systems, the transition to IPv6, advanced multimedia, and Internet Protocol television (IPTV). Taking into account the most important issues of our time: climate change and sustainable development.

Along with other technical institutions, ITU's technical standardization work is helping to realize the vision of a fully-networked society, as users expect to be able to access high-speed services anytime, anywhere, over any device.

Standards are also essential for international communications and global trade.

Global standards avoid costly market battles over preferred technologies. And for companies from emerging markets, they create a level playing field, providing equal access to markets.

They are also fundamental in assisting developing countries in rolling out infrastructure and encouraging greater levels of social and economic development.

Standards can also reduce costs for manufacturers, operators and consumers, through economies of scale.

Excellencies, ladies and gentlemen,

ITU has remained the leading global standards body for telecommunications – and now ICTs – for over a century.

To have maintained the level of credibility and importance that ITU has achieved over so many decades is an incredible feat.

The challenge is to ensure that it remains this way.

I am confident that the decisions and resolutions formulated at WTSA-12 will be directed by the needs of the global community and steered by ITU's vision to 'Connect the World'.

I would like to welcome all participants here today including the public and private sectors. We have a record participation to this Assembly, which signifies your commitment to work together, continuing the ITU spirit of cooperation, collaboration, and consensus.

I wish you a very successful Assembly.

Thank you.

Annex 3

Opening remarks at WTSA-12
Mr. Mohammed Gheyath,
Chairman of the World Telecommunication Standardization Assembly,
(20 November 2012)
Dubai, United Arab Emirates

In the Name of God, the Compassionate, the Merciful:

H.E. Dr Hamadoun I. Touré, Secretary-General of the International Telecommunication Union,

H.E. Mohammad Naser Al Ghanim, Director General, Telecommunications Regulatory Authority, United Arab Emirates,

Mr Houlin Zhao, Deputy Secretary-General of the International Telecommunication Union,

Mr Malcolm Johnson, Director, Telecommunication Standardization Sector,

Mr Brahima Sanou, Director, ITU Telecommunication Development Bureau,

Ladies and gentlemen,

Allow me first to welcome you all and thank you for offering me your valued confidence by choosing me to be Chairman of the World Telecommunication Standardization Assembly (WTSA-2012), which is being held in the UAE four years after its meeting in South Africa.

I would also like to express special thanks to H.E. Dr Hamadoun Touré for his great efforts to develop and evolve the work of ITU so that it can play a leading role in the global telecommunication community.

I welcome my colleagues, chairmen and members of delegations and study groups, and draw their attention to the importance of the work that we are doing in the standardization field, the importance, complexity, and consequences of which continue to increase with the rapid pace of introduction of new technologies.

Since its foundation, ITU has emphasized the importance of developing unified global telecommunication standards in accordance with the principles of global connectivity, openness, affordability, reliability, interoperability, and security. I also recognize the implications of the rapid development in ICT which necessitates the engagement of the private sector, private organizations, and stakeholders in developing these standards and presenting their perspectives and suggestions concerning them with a view to developing more transparent and credible standards that receive the required response all around the world.

As H.E. Mohammad Al Ghanim, Director General of the Telecommunications Regulatory Authority, indicated in his speech, coordination and synergy around global telecommunication standardization have become now even more pressing issues. This is especially the case when we consider the increasing number of active organizations and their different agendas and working methods. Under such conditions, it becomes ever more difficult to achieve unified global standards. That is why we are here today to overcome all obstacles and challenges in this area. To achieve this goal, we have to work together and make a sincere effort to achieve our goals and ambitions.

During its current session, the WTSA meetings will focus on developing a roadmap for those aspects that need further study to develop new standards or modify existing global standards for telecommunications. These standards will cover all aspects, starting from basic network functions and broadband to next generation services. We will work in the coming days on taking decisions related to the work of the ITU-T Study Groups and assigning them a group of Questions which they will be required to study. We also have to review our working methods, including the approval process and work programmes. These issues will determine future telecommunication standards.

Distinguished participants,

What we need in our meetings during the next few days is the same spirit that prevails throughout the UAE community: in this good land we live with our diverse cultures and ethnic backgrounds, each with special needs, ambitions, and dreams; but we have learned that the fastest way to fulfil those dreams is to work together, hand in hand, in an atmosphere of tolerance, friendship, accommodation and mutual understanding.

The success and progress achieved by the UAE in a record time, with God's guidance, is due to this spirit. It is the spirit of the Emirates, the spirit of unity, which we take as our motto during this year's celebrations of the UAE national day on the 2nd of December.

As part of the ITU, the foundation of our work is based on mutual agreement over all the outcomes of this Assembly. So let us work together to achieve that mutual agreement, let us listen to one another's opinions, and let us make it our goal to agree on decisions that satisfy everyone, even if this sometimes requires us to make concessions to one another, because our concern is the public interest.

I would like to take this opportunity to remind everyone of some general principles on which all are in agreement.

The Assembly's work is concentrated in ten days which will pass very quickly. So let us cooperate and those days to our best advantage and endeavour to make the best possible use of our time, whether in proposing working papers or during debates.

Let us work together to discuss and conclude all Questions at the Study Group level so that we can reserve plenary meeting time for final adoption and for reaching joint decisions that are satisfactory to all. I will be sure to be present with you all the time to follow the debates. I will also attend Study Group meetings and, in the steering committee, we will continuously discuss work progress in order to overcome any difficulties that arise and offer you the best possible support.

I am confident that ITU-T, represented by its Director, Mr Malcolm Johnson, and all its staff, will spare no effort to make this Assembly successful and fulfil the participants' objectives.

Ladies and gentlemen,

On your behalf, allow me to thank the translation team in advance for their efforts. It is they who make it possible for us to communicate with ease. They bear a heavy burden and share the hardship and fatigue during the long days and hours of our meetings. They also share our success at the conclusion of the Assembly's business. So let us in turn thank them, in the certain knowledge that they will be here to support us whenever we need them, as they have always been.

Ladies and gentlemen,

Without further ado, I wish you all success, and I am confident that our common effort and close cooperation will lead us to achieve what is in everybody's interest and to empowerment for all people around the world, especially in developing countries, enabling them to benefit from information and communication technologies in their progress and in establishing economies that secure prosperity for their people.

Thank you, and may God's peace and blessings be with you.

Annex 4

Address to the first Plenary of WTSA-12
Malcolm Johnson, Director of TSB, ITU
(20 November 2012)
Dubai, United Arab Emirates

Excellencies, Ministers,
Chairman of the Board of TRA,
Secretary-General, Deputy Secretary-General, Director of the BDT, Ambassadors,
Distinguished colleagues,
Ladies and gentlemen,

Salam Aleikum, Good morning,

Let me add my welcome to you to this World Telecommunication Standardization Assembly 2012. I am very pleased to see we have such a good participation. We have around 1000 participants registered for this Assembly and over 100 countries represented. I would like to express my sincere thanks to the United Arab Emirates for offering us such wonderful facilities here in the spectacular city of Dubai. I would also like to thank our friends of TRA for the excellent collaboration of the TRA team with the ITU secretariat in preparing for the event.

I would also like to thank our Chairman Mr Mohammed Gheyath for agreeing to take on the chairmanship of this world assembly. I believe the Chairman's advice in his opening address shows we are in very good hands.

The Secretary-General has spoken of the shining example of Dubai as a symbol of great progress in the Middle-East. A further example is the city of Masdar. This is a real Smart City full of world firsts. Here, UAE is really leading the way. I congratulate everyone involved on the creation of this test bed from which the world has a lot to learn.

AT WTSA-08 in Johannesburg many new initiatives were agreed for ITU-T Sector especially in the area of sustainability. Over the last 4 years, ITU-T has produced many new standards and reports that will aid countries and industry to harness the great power of ICTs especially to become more sustainable and to mitigate and adapt to climate change.

Yesterday at the Global Standards Symposium we saw yet again the importance of international standards underlined by global ICT leaders. Again in 2008 WTSA took advantage of the conclusion of the GSS and I am sure we will do the same again this year. The report of the GSS will be presented this afternoon by the Chairman of the GSS.

As the world becomes more and more connected it is clear that all sectors now rely on ICTs to maintain and streamline their operations.

The coordinated development of international standards to ensure global interoperability cannot be conducted in isolation and the GSS highlighted the need to create mechanisms to engage better with vertical sectors and the other leading standards bodies. With convergence, it is clear that this will be a key challenge for us in coming years.

So Ladies and Gentlemen

I can reflect, with some satisfaction, on the significant achievements of ITU-T over the last four years, thanks to the many initiatives taken at the last WTSA in Johannesburg in 2008.

These regular WTSAs provide an opportunity for the full membership of the ITU to review and further improve ITU-T's role as the only truly global ICT standardization body, and I am confident that WTSA-12 will consolidate these gains.

WTSA is our chance to further streamline the structure of our standards work and make sure that it meets the demands of today's fast paced information society. ITU as the only UN Agency involved in ICT standardization is in a strong and unique position to take responsibility in shaping this new period of ICT development.

As a consequence of the decisions taken in Johannesburg in 2008 we have seen our membership and participation substantially increase. This is the strongest endorsement of what ITU-T offers, and so I would like to take this opportunity to thank our new members and encourage our existing members to continue to make positive contributions that can help ITU in our aim to Connect the World.

ITU-T offers a friendly environment where newcomers are welcomed and all countries have equal rights and all companies have equal rights, no matter how large or small. It is the place to develop global standards in quick response to the needs of our membership, whether from developed or developing countries.

The decisions taken at WTSA-08 initiated a lot of new work in areas such as: optical transport; smart grids; cloud computing; machine-to-machine communications; e-health; intelligent transport systems; accessibility; IPTV; emergency communications; climate change; and cybersecurity; as well as the new membership category of academia, and the new substantially reduced fee for Sector Members from certain countries.

We will look at some of these achievements in more detail later today.

One of the achievements that I am most proud of is the increasing involvement of developing countries participating actively in our work today. We have made great effort to put in place mechanisms that facilitate their participation. The contributions to the Bridging the Standardization Gap fund by Nokia Siemens Networks, Microsoft, Cisco and Korea Communications Commission have greatly facilitated this and I would like to thank them once again and encourage others to contribute to this fund.

And WTSA-12 as well as defining the next period of study for ITU-T will also look to provide us some guidance on how to facilitate an even greater level of involvement in coming years.

It will determine the most important areas to focus on and assign them to the relevant expert groups. The resulting workplan will guide us for the next four years with the various Study Groups and their leaders defined.

As Director of ITU's Telecommunication Standardization Bureau I can assure you that all the staff of the TSB are ready and keenly awaiting the challenge that a new study period will bring us. My staff is here to serve the best interests of our members and I can assure you that we will spare no effort in making this WTSA-12 a successful and enjoyable event.

Thank you. Shukran.

1.2 – Report of the third plenary meeting

Chairman: Mr Mohammed GHEYATH (United Arab Emirates)

(Friday, 23 November 2012, 1615 – 1700 hours)

1 Opening

The Chairman opened the 3rd Plenary.

2 Approval of the agenda

Plenary adopted the agenda (ADM/21 rev1).

3 Approval of report of inaugural ceremony and plenary meetings 1 and 2

Plenary approved the report of the inaugural ceremony and plenary meetings 1 and 2 (Document 72).

4 ITU-T SG15 matters

Plenary approved draft ITU-T Recommendations ITU-T G.9980 (Document 41) with the addition of the text added as described in Document 84.

The Chairman of ITU-T SG15 reported that IETF had sent a liaison to ITU on 21 November, informing that IANA has allocated a code point for use by ITU-T G.8113.1 OAM implementations (Document 83).

4bis Revision of ITU-T E.161 – Support for non-Latin characters

The Republic of Korea presented Document 35/Add 12. Plenary agreed that ITU-T SG2 be invited to expeditiously revise Recommendation ITU-T E.161 ("Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network") for the benefits of those using languages with non-Latin characters. Members are invited to submit contributions to ITU-T SG2 to progress the work.

5 Progress reports by Committee Chairmen

5.1 Committee 2 (Budget Control)

The Chairman of Committee 2, Mr Kyu-Jin Wee, gave a report.

The COM 2 Chairman requested the chairmen of all Committees and Working Groups to provide, as soon as possible, all indications and information concerning decisions and resolutions that may have financial implications on both income and expenditure (Documents 80 and 81).

Plenary noted the oral report.

5.2 Committee 3 (Working Methods of ITU-T)

The Chairman of Committee 3, Mr Steve Trowbridge, gave a report.

The reports of the first two sessions are available as DT/15 and DT/31. COM 3 will deliver a report to Plenary after COM 3 will have concluded its work.

COM 3 agreed to modify Resolutions 18, 22, 31, 32, 33, 35, 38, 57, 66 and 74.

COM 3 agreed to suppress Resolution 53.

COM 3 agreed to reapprove unchanged Recommendations ITU-T A.8, ITU-T A.12, ITU-T A.13, ITU-T A.23 and ITU-T A.31, as well as the Supplements 2 and 3 of the ITU-T A-series.

COM 3 has a number of on-going drafting activities.

Plenary noted the oral report.

Plenary approved to suppress Resolution 53 - Establishment of a workshop and seminar coordination group.

5.3 Committee 4 (ITU-T Work Programme and Organization)

The Chairman of Committee 4, Mr Yoichi Maeda, gave a report (Documents 73 and 86).

COM 4 agreed to keep the current study group structure with ten study groups; COM 4 is now working on the refinement of the structure and in updating Resolution 2.

COM 4 agreed on draft revised Resolutions 62, 47, 48, 49, 59, 72 and draft new Resolution 78 on e-health (Document 87).

COM 4 agreed to suppress Resolution 63.

The proposal in Document 26 ("Consultation on Plenipotentiary Resolution 178 'ITU Role in organizing the work on technical aspects of Telecommunication networks to support the Internet'") from the Director of TSB was transferred from WG 4A to COM 4 as WG 4A did not reach agreement on the creation of a new joint coordination activity (JCA) on Internet matters. While there was a lot of support for a JCA as a mechanism to address the mandate from Plenipotentiary Resolution 178 (Guadalajara 2010), the specific mandate in the terms of reference of the JCA may need to be refined. An ad hoc group was therefore formed to progress the discussion.

An ad hoc group will further refine Resolution 73 on ICT and climate change and look into proposed draft new Resolution 79 on e-waste.

COM 4 still needs to review the proposals to create three new regional groups (for ITU-T SG2 and ITU-T SG5 in the Americas, and for ITU-T SG13 in Africa). All other items are either closed or are making good progress. Several ad hoc groups will meet on Saturday and Sunday, including on the study group structure refinement, the Strategic Review Committee, and on the proposal for a new Resolution on Software Defined Networks.

Plenary approved the reports of Committee 4 Sessions 1 and 2 (Documents 73 and 86), and noted the oral report of Session 3.

Plenary approved to suppress Resolution 63 – Studies regarding nomadic telecommunication services and applications.

6 Progress report by Committee 5 (Editorial Committee)

The Chairman of Committee 5, Ms Marie-Thérèse Alajouanine, gave a report.

The report of the first session is available in DT/24. Meetings of COM 5 will be held as soon as documents are ready to be processed by COM 5. The COM 5 Chairman invited everyone to participate in meetings of COM 5. As the meeting schedule is very tight and COM 5 is preparing its output in six languages, COM 5 is counting on the help of everyone.

Plenary noted the oral report.

7 Schedule of meetings for Saturday and Sunday

The Chairman notified delegates about the schedule of meetings for Saturday and Sunday (DT/41 Rev2).

8 Any other business

There was no other business.

The meeting closed at 1700.

1.3 – Report of the fourth to seventh Plenary meetings and closing ceremony

Chairman: Mr Mohammed GHEYATH (United Arab Emirates)

(Wednesday 28 November 2012, 0930 – 1230 hours, 1430 – 1730 hours; 1830 – 1930 hours;
Thursday 29 November 2012, 0930 – 1145 hours & Closing Ceremony 1230 – 1330 hours)

1 Opening of Plenary

The Chairman opened Plenary.

2 Approval of the agenda

Plenary adopted the agendas ADM33 (Rev.1 to Rev.4).

3 Approval of report of Plenary meeting 3

Plenary approved the report of Plenary meeting 3 (Doc. 95).

4 Consideration and approval of the reports of Committee 5 (Editorial Committee)

Note 1 – The Editorial Committee treated 85% of all pages submitted; only Resolutions 70 (*Doc. 91*), 52, 58, 60, 61, 62, 69, 75 (*Doc. 105*), 64 (*Doc. 109*), 7, 76, 43, 44, 54, Opinion 1 *(Doc. 106*) went directly from the Committees to Plenary.

Note 2 – The Editorial Committee will have a post-WTSA meeting (see section 4.65).

4.1 The Chairman of Committee 5, Ms Marie-Thérèse Alajouanine, presented the reports of Committee 5 (Doc. 88, Doc. 89, Doc. 90, Doc. 91, Doc. 92, Doc. 115, Doc. 116).

4.2 Plenary approved revised Resolution 18, *Principles and procedures for the allocation of work to, and coordination between, the ITU Radiocommunication and ITU Telecommunication Standardization Sectors* (Doc. 88).

4.3 Plenary approved revised Resolution 31, *Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Standardization Sector* (Doc. 88).

4.4 Plenary approved revised Resolution 34, *Voluntary contributions* (Doc. 88).

4.5 Plenary approved revised Resolution 47, *Country code top-level domain names* (Doc. 88).

4.6 Plenary approved revised Resolution 48, *Internationalized (multilingual) domain names* (Doc. 88).

4.7 Plenary approved revised Resolution 49, *ENUM* (Doc. 88).

4.8 Plenary approved revised Resolution 59, *Enhancing participation of telecommunication operators from developing countries* (Doc. 88).

4.9 Plenary approved revised Resolution 62, *Dispute settlement* (Doc. 88).

4.10 Plenary approved revised Resolution 72, *Measurement concerns related to human exposure to electromagnetic fields* (Doc. 88). The Editorial Committee will align the square brackets.

4.11 Plenary reviewed draft new Resolution 78, *Information and communication technology applications and standards for improved access to e-health services* (Doc. 88). A drafting group was set up to address some concerns raised. Resolution 78 was then adopted by Plenary with the following modifications:

– Add a new *recognizing* section with two new recognizing:

1 the importance of safeguarding patients' rights and privacy;

2 that there are national legislative and regulatory discussions relating to e-health and e-health applications and that this is an area of rapid evolution,

– Modify the *resolves to instruct the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau* to also include the Director of the Radiocommunication Bureau

– In this same resolves, amend *resolves* 1 to read:

1 to give priority consideration to the enhancement of telecommunication/ICT initiatives in e-health and to coordinate their related standardization activities;

– Amend the instructs Study Group 16, in collaboration etc., item 4, to read:

4 within the current mandate of ITU-T study groups, to give priority to the study of security standards (e.g. for communications, services, network aspects and service scenarios of databases and record handling, identification, integrity and authentication) relating to e-health, taking into account recognizing 1,

– Amend the invites Member States to read:

"to consider, as appropriate, the development and/or enhancement of frameworks which may include legislation, regulations, standards, codes of practice and guidelines to enhance the development of telecommunication/ICT services, products and terminals for e-health and e-health applications, within the scope of Plenipotentiary Resolution 130,"

The ITU Secretary-General pointed out that the Telecommunication Standardization Sector and the Development Sector have worked well together and will continue to do so in matters related to assisting developing countries in order to avoid duplication.

4.12 Plenary approved revised Resolution 22, *Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies* (Doc. 89).

4.13 Plenary approved revised Resolution 32, *Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector* (Doc. 89).

4.14 Plenary approved revised Resolution 33, *Guidelines for strategic activities of the ITU Telecommunication Standardization Sector* (Doc. 89).

4.15 Plenary approved revised Resolution 35, *Appointment and maximum term of office for chairmen and vice-chairmen of study groups of the Telecommunication Standardization Sector and of the Telecommunication Standardization Advisory Group* (Doc. 89).

4.16 Plenary approved revised Resolution 38, *Coordination among the three ITU Sectors for activities relating to International Mobile Telecommunications* (Doc. 89).

4.17 Plenary approved revised Resolution 57, *Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest* (Doc. 89).

4.18 Plenary approved revised Resolution 66, *Technology watch in the Telecommunication Standardization Bureau* (Doc. 89).

4.19 Plenary approved revised Resolution 74, *Admission of Sector Members from developing countries in the work of the ITU Telecommunication Standardization Sector* (Doc. 89).

4.20 Plenary approved revised Resolution 45, *Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group* (Doc. 90).

4.21 Plenary approved revised Resolution 67, *Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing* (Doc. 90).

4.22 Plenary approved revised Resolution 71, *Admission of academia to participate in the work of the ITU Telecommunication Standardization Sector* (Doc. 90).

4.23 Plenary approved revised Resolution 73, *Information and communication technologies, environment and climate change* (Doc. 90).

Italy announced that in order to help ITU implement Resolutions 72 and 73 it would be happy to host ITU's 8th Symposium on ICT, environment and climate change on 10-12 April 2013 in Turin, Italy, preceded by a workshop on Resolution 72 (EMF). The Director of TSB thanked Italy which has been a strong supporter of ITU's work on the environment and climate change.

4.24 Plenary approved draft new Resolution 77, *Standardization work in the ITU Telecommunication Standardization Sector for software-defined networking* (Doc. 90) with the following modification:

– in "*instructs the Director of TSB*", "via the CTO meetings (…)" will be replaced by ", including through the CTO meetings (…),"

4.25 Plenary approved revised Draft New Resolution 79, *The role of telecommunications/information and communication technologies in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it* (Doc. 90).

4.26 Plenary approved revised Recommendation ITU-T A.2, *Presentation of contributions to the ITU Telecommunication Standardization Sector* (Doc. 90).

4.27 Plenary approved revised Recommendation ITU-T A.4, *Communication process between the ITU Telecommunication Standardization Sector and forums and consortia* (Doc. 90).

4.28 Plenary approved revised Recommendation ITU-T A.6, *Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations*. (Doc. 90).

4.29 Plenary approved revised Recommendation ITU-T A.7, *Focus groups: Establishment and working procedures* (Doc. 90).

4.30 Plenary approved revised Resolution 11, *Collaboration with the Postal Operations Council of the Universal Postal Union in the study of services concerning both the postal and the telecommunication sectors* (Doc. 91).

4.31 Plenary approved revised Resolution 55, *Mainstreaming a gender perspective in ITU Telecommunication Standardization Sector activities* (Doc. 91).

4.32 Plenary approved revised Resolution 68, *Implementation of Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference on the evolving role of the World Telecommunication Standardization Assembly* (Doc. 91), with the following modifications:

– "resolves that the Director of TSB" will be replaced by "resolves to instruct the Director of TSB"

– In "resolves to instruct 3)", after "in these meetings," the following text will be added: "with a view of enhancing cooperation, collaboration, and coordination with their organisations, and encouraging these organisations to join ITU-T as a Sector Member, or as Sector Members, as appropriate."

– In "resolves to instruct 4)", "TSAG" will be added to read "report on the progress of this resolution to TSAG and to the next WTSA, with lessons learned"

4.33 Plenary approved revised Resolution 70, *Telecommunication/information and communication technology accessibility for persons with disabilities* (Doc. 91); the Editorial Committee will align the text in square brackets with the text from Committee 4.

4.34 Plenary approved revised Recommendation ITU-T A.1, *Working methods for study groups of the ITU Telecommunication Standardization Sector* (Doc. 91).

4.35 Plenary approved revised Recommendation ITU-T A.11, *Publication of ITU-T Recommendations and WTSA proceedings* (Doc. 91).

4.36 Plenary approved revised Resolution 2, *ITU Telecommunication Standardization Sector study group responsibility and mandates* (Doc. 92).

– It was highlighted that with respect to cloud computing, Study Group 13 and Study Group 17 need to collaborate and that the decision to be taken by TSAG be based on consensus.

– TSB was mandated to check Resolution 2 Annex C ("List of Recommendations under the responsibility of the respective study groups and TSAG in the 2013-2016 study period") prior to publication, to ensure that the detailed Recommendation series allocations to study groups properly reflect all decisions taken by the assembly.

4.37 Plenary approved revised Resolution 7, *Collaboration with the International Organization for Standardization and the International Electrotechnical Commission* (Doc. 106).

4.38 Plenary approved revised Resolution 76, *Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU Mark programme* (Doc. 106).

4.39 Plenary approved revised Resolution 43, *Regional preparations for world telecommunication standardization assemblies* (Doc. 106).

4.40 Plenary approved revised Resolution 44, *Bridging the standardization gap between developing and developed countries* (Doc. 106) with the following modification:

– in the first item in "*invites Regions and its Member States",* "resolves 6" needs to be replaced with "resolves 5".

4.41 Plenary approved revised Resolution 54, *Creation of, and assistance to, regional groups* (Doc. 106).

4.42 Plenary approved draft new Opinion 1, *Practical application of network externality premium* (Doc. 106).

4.43 Plenary approved, after discussion, draft new Resolution 82: *Strategic and structural review of the ITU Telecommunication Standardization Sector* (Doc. 113) with the following modifications:

– "*resolves 1*" will read: "to establish, in accordance with No. 191A and 191B of ITU Convention, a Review Committee functioning in accordance with the relevant provisions of Article 14A of the Convention and the procedures provided below, and the terms of reference as described in Annex A, taking account of today's standardization environment and of the continued evolution of ITU-T;"

– In the terms of reference (Annex A), item 5, the word "other" is inserted before "standard bodies"

– To combine to combine the current items 11 b) and 11 c) of the ToR in the following new item b): "11 b) representatives of other organizations not covered in a) above, to join the meetings where subject matters of these other organizations are discussed, together with other experts, including Associates, invited by the Chairman in consultation with the vice-chairmen and the TSB Director;" (2nd proposal of Chairman of Committee 4)

– To add the following text: "and take into account the comments made by TSAG on the progress report" at the end of ToR item 9 to read:

– "9 The Review Committee is established by this assembly and shall present its report to WTSA-16 without changes through TSAG. In addition, the Review Committee shall report its progress to TSAG on a regular basis and take into account the comments made by TSAG on the progress report." (3rd proposal of Chairman of Committee 4)

The Russian Federation stressed the need to clearly define the relationship between the Review Committee and TSAG, because the tasks assigned to the Committee under this resolution, and the tasks assigned to TSAG by Article 14A of the Convention and a number of WTSA-12 Resolutions largely coincide. The Review Committee should be considered as a TSAG working body that performs some tasks of TSAG. Therefore, reference to Article 14A of the Convention in the *resolves* of the Resolution is to be read in accordance with No197G whereby TSAG shall "adopt its own working procedures compatible with those adopted by the world telecommunication standardization assembly" and the Review Committee is a form of TSAG activities defined by WTSA.

Sweden emphasized that the ToR talk about cooperation on the same level between different organizations.

The United States of America reiterated that Associates should be invited to participate in the Review Committee because they could make an important contribution.

It was stated that the Chairman of the Review Committee should also be part of the TSAG Management Team.

4.44 Plenary approved revised Resolution 52, *Countering and combating spam* (Doc. 105).

4.45 Plenary approved revised Resolution 58, *Encourage the creation of national computer incident response teams, particularly for developing countries* (Doc. 105).

4.46 Plenary approved revised Resolution 60, *Responding to the challenges of the evolution of the identification/numbering system and its convergence with IP-based systems/networks* (Doc. 105).

4.47 Plenary approved revised Resolution 61, *Countering and combating misappropriation and misuse of international telecommunication numbering resources* (Doc. 105).

4.48 Plenary approved revised Resolution 65, *Calling party number delivery, calling line identification and origin identification* (Doc. 105).

4.49 Plenary approved revised Resolution 69, *Non-discriminatory access and use of Internet resources* (Doc. 105).

4.50 Plenary approved revised Resolution 75, *The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society* (Doc. 105).

4.51 Plenary approved revised Resolution 20, *Procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources* (Doc. 115).

4.52 Plenary approved revised Resolution 29, *Alternative calling procedures on international telecommunication networks* (Doc. 115).

4.53 Plenary approved revised Resolution 40, *Regulatory aspects of the work of the ITU Telecommunication Standardization Sector* (Doc. 115).

4.54 Plenary approved revised Resolution 50, *Cybersecurity* (Doc. 115).

4.55 Plenary approved the suppression of Resolution 17, *Telecommunication standardization in relation to the interests of developing countries*.

4.56 Plenary approved the suppression of Resolution 26 - *Assistance to regional groups of Study Group 3*.

4.57 Plenary approved the suppression of Resolution 56 - *Roles of TSAG and ITU-T study group vice-chairmen from developing countries*.

4.58 Plenary approved revised Resolution 1 - *Rules of procedure of the ITU Telecommunication Standardization Sector* (Doc. 116) with the following change:

– The square brackets in *considering c)* will be changed from "set down in the Preamble in Article 1 of those regulations" to "set down in the relevant articles of those regulations."

4.59 Plenary approved draft new Resolution 81, *Strengthening collaboration* (Doc. 116), with the following modifications:

– The square brackets will be removed

– "*considering c*" will read "that ITU Telecommunication Standardization Sector (ITU-T) external cooperation is guided by relevant ITU-T Resolutions, A-series Recommendations and Supplements;"

– Under "invites TSAG", the word "complementary" will be removed

4.60 Plenary approved draft new Resolution 80, *Acknowledging the active involvement of the membership in the development of ITU Telecommunication Standardization Sector deliverables* (Doc. 116), with the following modification:

– "*invites Member States*" will read "to consider, as appropriate, participation of academia in the ITU-T contribution process and to provide visibility and acknowledgment of their contributions, editorships, and other outputs so that they may be considered as eligible activities for research and development productivity evaluation."

4.61 Plenary approved revised Recommendation ITU-T A.5, *Generic procedures for including references to documents of other organizations in ITU-T Recommendations* (Doc. 116), including Corrigendum 1 of Doc. 108 which the Editorial Committee would need to take into account in its post-WTSA meeting (see section 4.64).

Plenary instructed TSAG to investigate identified problems with referencing (noting Doc. 55) to develop the necessary strengthening of the rules of ITU-T A.5 or improvements needed in its application.

4.62 Regarding Resolution 64, *IP address allocation and facilitating the transition to and deployment of IPv6*. Committee 4 had submitted text to Plenary (Doc. 109) which contained a square bracket in "considering f)" on ITU-T to become an additional registry of IP addresses. Following off-line discussions, the WTSA Chairman submitted a compromise solution to Plenary ("Chairman's proposal for draft revised Resolution 64 regarding "[Considering f]", Doc. 117) which proposed to instruct the Director of TSB to carry out a study regarding the feasibility of ITU becoming a registry for IP addresses. Several delegations stated that this proposal had been presented late and could not be discussed properly. The United States of America emphasized that the United Nations should not get engaged in the day-to-day technical operations of the Internet. The ITU Secretary-General intervened to state that it was important to come to consensus solutions so he invited the WTSA Chairman to withdraw his proposal, given that it appeared to be controversial. The Chairman withdrew his proposed *instruct* and asked whether Plenary could accept his proposed "considering f)". The meeting so agreed.

Before approval, several delegations took the floor to express that they considered IP addresses a critical internet resource; ITU as the specialized UN agency has proven legitimacy and the experience and necessary competence to manage telecommunication resources, and the current arrangements for allocation of IP addresses did not necessarily respect fully their sovereign rights. As a consequence, they stated, it would be appropriate for the ITU to conduct further studies regarding IP address allocation, including current developments regarding IPv4 addresses.

4.63 Plenary noted the request of Canada that TSB submit a report to WCIT on the results of WTSA.

4.64 In her closing remarks, the Chairman of the Editorial Committee, Ms Marie-Thérèse Alajouanine, said that all texts that came to the Editorial Committee were dealt with immediately and that only 15% of the pages submitted to the Editorial Committee could not be reviewed because of lack of time as a large number of texts arrived at the last hour.

4.65 Plenary agreed that the Editorial Committee hold another meeting (probably in January 2013) to finish its work.

5 Consideration and approval of the report of Committee 2 (Budget Control)

5.1 The Chairman of Committee 2, Mr Kyu-Jin Wee, presented the report (Doc. 118).

5.2 The Deputy Secretary-General, Mr Houlin Zhao, transmitted the message on behalf of the Secretary-General that it will be challenging to budget the additional financial resources needed to support the activities decided at WTSA-12 as identified by Committee 2. He encouraged that the Sector identify additional resources to cover the additional requirements. The Secretary-General also transmitted that close collaboration with the Development Sector will be essential.

5.3 The Director of TSB, Mr Malcolm Johnson, said that the 2012 work programme could not have been completed if TSB had not received voluntary contributions, in particular for bridging the standardization gap, to which the Korean Communications Commission, Microsoft, Cisco and Nokia Siemens Networks have contributed during the study period. Mr Johnson expressed his appreciation that recently Canada made a voluntary contribution towards this fund and he made a plea to the membership to provide voluntary funding to the work of TSB. He also reiterated that ITU-T and TSB are enjoying excellent collaboration with the other two Sectors and Bureaux. He gave as example that a number of internal task forces have been set up to avoid duplication of work.

5.4 Plenary approved the report of Committee 2.

6 Consideration and approval of the report of Committee 3 (Working Methods of ITU-T)

6.1 The Chairman of Committee 3, Mr Steve Trowbridge, presented the report (Doc. 112 Rev1).

6.2 Recommendations ITU-T A.8, ITU-T A.12, ITU-T A.13, ITU-T A.23, and ITU-T A.31, as well as Supplements 2 and 3 to the ITU-T A-series Recommendations, were neither modified nor suppressed by this assembly and remain in-force.

6.3 Plenary approved the report of Committee 3.

7 Consideration and approval of the report of Committee 4 (Work Programme and Organization of ITU-T)

7.1 The Chairman of Committee 4, Mr Yoichi Maeda, presented the report (Doc. 111 Rev1).

7.2 Plenary approved three regional groups (Doc. 104 Annex 1):

– ITU-T Study Group 2 Regional Group for the Americas

– ITU-T Study Group 5 Regional Group for the Americas

– ITU-T Study Group 13 Regional Group for Africa

7.3 Plenary approved the allocation of conformance & interoperability work, the special arrangements for various Questions, the collocation and sequencing of study group meetings, and the allocation of the cloud computing security work as outlined in clause 2.3 of Doc. 111 Rev1. Plenary noted the action concerning new Question proposals in §2.3.4 and §2.3.5 of Doc. 111 Rev1.

7.4 Plenary approved, after some discussion, a Joint Coordination Activity on technical aspects of telecommunication networks to support the Internet (JCA-Res178) as described in the Annex of Doc. 114 Rev1, with the square brackets under item 4 of the terms of reference removed.

7.5 Plenary approved the Committee 4 reports of its 3rd meeting (Doc. 98), 4th meeting (Doc. 104), 5th and 6th meeting (Doc. 110) as well as the final report of Committee 4 to Plenary (Doc. 111 Rev1).

8 Appointment of Chairmen and Vice-Chairmen of TSAG, study groups, regional groups of ITU-T SG3, Standardization Committee for Vocabulary and Review Committee

8.1 Plenary appointed the chairmen and vice-chairmen for the study period starting 30 November 2012 as proposed by the heads of delegation in Doc. 120 Rev.2. Names for the posts open for the Standardization Committee for Vocabulary and for the Review Committee should be forwarded to the Director of TSB before the end of 2012.

8.2 Plenary also agreed with the suggestion of the heads of delegation meeting that, in the future, the chairman and vice-chairmen of all regional groups of the study groups (including those of ITU-T SG3 regional groups) would be appointed not by WTSA but directly by the study groups.

9 Any other business

9.1 There was no other business.

10 Closing ceremony

10.1 H.E. Mohamed Al Ghanim, Director General of the Telecommunications Regulatory Authority of the United Arab Emirates, delivered his closing remarks (Annex A).

10.2 The Director of the Telecommunication Standardization Bureau, Malcolm Johnson, delivered his closing remarks (Annex B).

10.3 The ITU Secretary-General, Dr Hamadoun Touré, delivered his closing remarks (Annex C) and presented the Chairman of the Assembly, Mr Mohammed Gheyath, with the silver medal of the Union.

10.4 The Chairman of the Assembly, Mr Mohammed Gheyath, thanked for the very kind words and the confidence that the Assembly has put in him. Mr Mohammed Gheyath expressed his gratitude to Plenary (Annex D).

10.5 Delegates thanked the United Arab Emirates, the WTSA Chairman, the Elected Officials, the chairmen and vice-chairmen of the various committees, working groups, ad hoc groups and drafting groups, the management teams of the past and next study period and the ITU staff for a successful WTSA-12.

10.6 The Chairman declared the World Telecommunication Standardization Assembly in Dubai 2012 closed at 1330 hours.

Annex A

Address[1] by the Director General of the Telecommunications Regulatory Authority of the United Arab Emirates
WTSA-12 Closing Ceremony
(29 November 2012)

H.E. Mohamed Al Ghanim

In the name of God, the Merciful and Compassionate,

Your Excellency the Secretary-General of the ITU,

Your Excellency the Deputy Secretary-General of the ITU,

Heads of Delegations and distinguished guests,

Peace be upon you and God's mercy and blessings,

When the events of the WTSA began, we had great hopes that this event will achieve all of its goals and endeavours that it aspired to and here we are today concluding its activities full of hope that the Resolutions reached and the decisions taken will meet the aspirations of all countries in benefitting from the capacities of information and communication technologies.

Conferences such as this enable us to unite our efforts and aspirations in the telecommunication sector. Furthermore, it also helps in developing this sector worldwide and specifically in developing countries which are in dire need of benefitting from the capacities of this sector to help resolve numerous economic, health, educational and social problems.

We in the United Arab Emirates, in cooperation with our colleagues in the ITU, believe that it is our duty to assist these developing countries to benefit from this sector and, through the WTSA and other conferences, we aim to increase our technical, human and financial resources and to work on harnessing standards towards the reduction of costs, facilitating the adoption of technology and implementing programs that will grant developing countries the opportunity to benefit from modern technologies in the aim of bridging the digital divide and to enable the peoples of these nations to achieve development and prosperity.

Ladies and Gentlemen,

With the conclusion of the activities of the World Telecommunication Standardization Assembly 2012, allow me, in the name of the United Arab Emirates, to extend my sincere thanks to the ITU, and namely His Excellency the Secretary-General for his unsparing personal efforts, to the ITU in general for ensuring the success of this hosting on the territories of the UAE and to the Deputy Secretary-General for his role and contributions that have enriched the Assembly.

I would like to thank Mr Malcolm Johnson, the Director of the TSB, for his participation and role and would also like to thank all members of the Secretariat of the ITU, its staff, and the interpreters for their hard work.

[1] Original language is Arabic; representations in other languages are based upon transcription of the audio interpretations available here: http://www.itu.int/en/ITU-T/wtsa12/Pages/webcast.aspx.

I would also like to thank the Chairman of this WTSA, Mr Mohammed Gheyath, for his distinguished performance, and the harmonising role he played throughout the Assembly in taking the decisions we witnessed. I would like to salute him and say to him, "You have made us proud with your success in this conference".

I would also like to thank the Chairman and members of the Board of the Telecommunications Regulatory Authority for their great contribution and constant support as well as the employees of the Telecommunications Regulatory Authority who were backing this successful hosting from the very beginning.

Ladies and Gentlemen,

In a few days we will celebrate the 41st anniversary of the national day of the UAE and I would like to take advantage of this platform to extend the highest congratulations and blessings to His Royal Highness Sheikh Khalifa Ben Zayed Al Nahyan, President of the United Arab Emirates, may God protect him, and his Highness Sheikh Mohamad Ben Rashed Al Maktoum, Deputy President, Prime Minister and ruler of Dubai, and their Highnesses the rulers of Emirates and Crown princes and the people of UAE.

I thank you very much for honouring us and for your effective participation in this important event and I hope that you had a pleasant stay on the hospitable territory of the UAE.

Peace be upon you and God's mercy and blessings.

Annex B

Address by the Director of the Telecommunication Standardization Bureau
WTSA-12 Closing Ceremony
(29 November 2012)
Malcolm Johnson

Chairman,
Director-General TRA, UAE,
Secretary-General,
Deputy Secretary-General,
Director of the Radiocommunication Bureau,
Director of the Telecommunication Development Bureau,
Distinguished Delegates,
Ladies and Gentlemen,

Salam Alekum, good morning.

We are coming to the close of the 2012 World Assembly of ITU's Telecommunication Standardisation Sector, after more than a year of preparatory meetings around the world, and ten full days of hard work and intense deliberation here in Dubai.

I believe I can announce that WTSA-12 has been a great success.

There have been differences of view on some issues, but we have all been united by the desire to support ITU-T in its efforts to meet its strategic objectives.

This World Assembly has built on the decisions made in Johannesburg, strengthening our mandate in many areas, and initiating new areas of work.

We now have an excellent foundation to take us forward into the future.

During this World Assembly, and the Global Standards Symposium that preceded it, the importance of collaboration and cooperation with other standards bodies, and vertical sectors, has been emphasised, recognising the competitive forces and the many challenges that ITU-T faces.

I am pleased that we have the new Review Committee as a forum with the time to discuss these issues seriously and come up with suggestions on how ITU-T, as the only truly global ICT standards body, can best ensure that it remains the place to come to develop international standards.

The strength of ITU-T compared to other standards bodies is in its membership: no other standards body has the unique combination of 193 Member States and around 430 Sector Members and Associates, as well as our new academia members. This diverse membership ensures that ITU-T standards are truly international, non-discriminatory, and meet the needs of the full membership – whether in developing countries or developed countries.

This is why the growing participation of developing countries is so important, and I am pleased to see the impetus given to the efforts to bridge the standards gap in the revised of Resolution 44.

On that note I would like to highlight the fund that we set up after Johannesburg to support developing country participation.

The Bridging the Standardization Gap fund has had four contributors; Korean Communications Commission, NSN, Microsoft and Cisco. I am pleased that we now have a new contributor … Canada. Thank you Canada.

Let me take this opportunity to repeat my plea of yesterday and encourage others to contribute to this fund which helps developing countries.

Participation at this World Assembly was the best we have ever had, with around 1000 participants from over 100 countries in attendance.

We have appointed 4 new chairmen and a total of 50 new vice chairmen.

I congratulate them all, and myself and my colleagues look forward to working with you to meet the expectations of this World Assembly. We will hold a tutorial for the new chairmen and vice-chairmen in Geneva on 10-11 January to go over our rather complex working procedures so that they are all well prepared for your new responsibilities. I very much hope the experienced Chairmen and vice-chairmen will also be able to join us to pass on their experience.

Although unfortunately we will not have a woman chairman for the next study period, we do have a number of new women vice-chairmen and I am confident that the next World Assembly will have candidates for women chairmen.

Over the last 10 days, we have worked in 5 committees, 4 working groups, 17 ad hoc groups, and 11 informal groups. They have worked through over 240 documents, often into the night and over the weekend.

This Plenary has adopted 49 revised and 10 new Resolutions, and 6 new Recommendations.

Following many years of collaboration with IETF, I was very pleased that the two Recommendations on MPLS-TP, which are urgently required by operators to increase network efficiency and reduce costs, were approved.

We also approved a key Recommendation on management of network access devices.

In addition, seven of the A series Recommendations that guide our work have been revised, in particular A.7 on Focus Groups which now allows TSB to provide Focus Groups with some support.

During one of our three side events we launched an Innovation challenge for the design of an app that would improve the social and economic inclusion of underserved communities, with a prize of $5000 kindly offered by NSN. This is the latest in an on-going series of challenges we started last year to encourage innovation.

We have adopted the first ever ITU-T Resolutions on e-health, software-defined networks, e-waste, and engagement of academia in our work – among many other important Resolutions.

We have made significant changes to Resolution 76 on conformity and interoperability, and given the task to Study Group 11. I believe this puts us on a much better footing to take this programme forward with the help of our industry members.

A revision of Resolution 34 on voluntary contributions will hopefully encourage more financial contributions to TSB to support the work of the Sector. Increased funding will be essential if we are to implement the decisions of this World Assembly and so I would encourage our Member States and Sector Members to consider providing TSB with some voluntary funding.

Over the last 12 months the ITU Secretariat participated and helped organise together with the regional organisations many preparatory meetings not for WTSA but also the World Conference on International Telecommunications (WCIT).

In order to inform everyone of the outcome of the World Assembly, we are willing to cooperate with the regional organisations to organise information sessions on the results and to discuss how we can implement in the region the decisions taken. I am pleased that APT has already invited us to participate in a join ITU/APT seminar for the region, provisionally 7-8 March next year.

In conclusion Mr Chairman, I would like to express my sincere thanks to you.

Your calm and assured approach created a conciliatory ambiance, and I am sure that all of the delegates here today felt confident of a successful conclusion in your hands.

I would also like to thank the Vice Chairmen of the Assembly, the Chairmen and the Vice-Chairmen of the Committees and Working Groups, and the Chairmen of the ad hoc groups and the informal groups, and especially our hard working Editorial Committee.

I wish to express not just my own personal appreciation, but the appreciation of the whole ITU Secretariat, to all delegates for the huge amount of effort that you have put in to ensure a success World Assembly.

I would also like to express my appreciation and thanks to my colleagues, especially the Secretary-General for his unfailing support, and the other elected officials, all of whom attended WTSA-12, and the staff in TSB, BR, BDT and the directors of the regional offices, as well as the staff of the General Secretariat, who have all worked very hard to achieve this success.

I would also like to thank the interpreters, translators, and captioners both here in Dubai, in the US, and in Geneva, and all those 602 local staff who have worked so hard towards the smooth running of this Assembly.

Last but not least, it gives me great pleasure to express my thanks to our hosts for the magnificent job they have done.

We know just how complicated organizing an event of this size can be.

We have enjoyed a wonderful level of hospitality and support and I know that everyone here will join me in expressing our gratitude for this.

In particular, I would like to express my thanks for the wonderful reception on the beach at Jumeirah, which was kindly sponsored by Du, who were also kind enough to provide mobile phones to all ITU staff and officials. I am sure all of us will retain fond memories of that night.

And the DVD that the hosts have kindly produced for us, will also be a nice souvenir.

Ladies and gentlemen … Thank you all for your participation and your contribution to the World Telecommunication Standardisation Assembly, 2012. For those of you leaving Dubai, I wish you a safe trip home, for those of you staying for WCIT, I hope you will find time to recharge your batteries!

Thank you chairman and I wish you and your colleagues a very enjoyable National Holiday.

Shukran

Annex C

Address by the ITU Secretary-General
WTSA-12 Closing Ceremony
(29 November 2012)
Dr Hamadoun I. Touré

Mr Mohamed Al Ghanim, Director-General TRA
Mr Chairman of WTSA-12, Mr Mohammed Gheyath
Heads of Delegations,
Fellow elected officials of ITU,
Distinguished delegates,
Ladies and gentlemen,

As this event draws to a close I would like to reflect on the importance of ITU's standardization work.

Gathered together in this beautiful city of Dubai, I would like to echo the comments of many of our delegates – Dubai is certainly one of the most fascinating cities in the world. This week we are fortunate to celebrate 41 years of the Union in this truly amazing city. I would like to ask the permission of this august assembly to send a message of congratulations to His Highness Sheikh Khalifa bin Zayed Al Nahayn, President of the United Arab Emirates and His Highness Sheikh Mohammed bin Rashid Al Maktoum, United Arab Emirates Vice President, Prime Minister, Ruler of Emirate of Dubai.

I would like to congratulate the United Arab Emirates for hosting a very successful event, this success largely being due to the excellent facilities, the highly professional staff, the legendary hospitality, and above all the peace, stability and security of this wonderful Emirate.

As this event draws to a close I would like to reflect on the importance of ITU's standardization work.

Under the excellent stewardship of the Director of TSB, Mr Malcolm Johnson, ITU-T has led a new area of standards production that truly embraces the hyper-connected world that we now live in.

As well as taking into account convergence between the information technology and telecommunications worlds, we are now seeing a trend towards defining ICT standards for vertical sectors – enabling e-health, intelligent transport systems, mobile banking, and the smart grid, among others, as reported in detail by the Director TSB.

ITU's standards for broadband are a vital component of the information society.

Indeed, the broadband services that we have come to rely on would simply not work without standards providing the access technologies to homes and businesses, and the transport mechanisms to carry information from one side of the world to another.

ITU standards gave most people their first taste of the Internet via simple modems. ISDN – also standardized in ITU – then became the technology of choice.

ADSL was arguably the first real broadband technology, opening up a whole new web experience for a new generation of Internet users. ADSL and its many variations are also standards authored by ITU experts.

New techniques are emerging for telephone companies to maximize their investment in copper wire and so-called bonding and vectoring techniques are now emerging to increase even the super-fast ITU standard VDSL2.

If you are lucky enough to have an optical fibre connection to your home then it won't surprise you to know that ITU is active here too. Fibre-to-the-home (FTTH) standards are also being produced in ITU.

At the heart of the network – the so-called transport domain – ITU standards focus on new methods to make the most of installed fibre optics. Technologies such as wave division multiplexing (WDM) were pioneered in ITU, allowing many carriers to share the same optical fibre.

If you're watching a video on YouTube or conducting a secure transaction on the web, the chances are that you're using an ITU-T Recommendation.

The rapid increase in global IP traffic demands that operators can maximize their investment in existing networks while also preparing for the future.

Our experts – our members – also have their ears to the ground in order to detect what's coming up next on the ICT horizon.

I would like to take this opportunity both to thank them and to congratulate them on these past achievements; what we have achieved here in the last ten days and what we will achieve in the future. This makes me very proud.

Ladies and gentlemen,

Now that WTSA-12 is nearly over, we can focus on the next study period – with confidence that the decisions made here in Dubai will provide focus to your work and facilitate the best mechanisms for that work to take place.

We managed to emerge from this Assembly with very little conflict or controversy. This is the true spirit of ITU; indeed consensus building is at the heart of what we do and has been our guiding principle during the last two weeks.

And I would like to hope that I will be able to say the same in a little over two weeks' time at the end of WCIT-12.

I would like to congratulate all the new members of the study group management teams, and wish them every success in their new roles.

And of course I cannot forget the outgoing chairmen and vice chairmen for their great commitment and invaluable contribution over the past years.

I congratulate their countries as well as the numerous countries that have put forward candidates.

All of them have done so with an admirable and honest intention to sacrifice their time and provide their expertise to the Union, with its aim to connect all citizens of the world.

My thanks go to you all for your hard work in the various committees and ad hoc groups.

Our Emirati hosts did their utmost to help each and every one of us make the best of our time here in Dubai, and I am extremely grateful to them for their support.

My thanks, too, go to all of the ITU staff, and the team of interpreters who once again proved that they are our greatest asset.

Distinguished delegates,

We have had an eventful Assembly here, serving as a prelude to a new and exciting period for ITU and its standards work.

As Malcolm has noted many of the Assembly's notable achievements I will not repeat them all here. We have adopted many key Resolutions including those on e-health; software-defined networks and e-waste.

I share Malcolm's enthusiasm for the establishment of a review committee to ensure that ITU-T's structure will continue to meet the needs of the continually-evolving and converging ICT landscape. This will be very important in this increasingly complicated ICT world.

In addition I applaud the many revised and new Resolutions that focus on increasing collaboration. And a new Resolution that will help us explore how to better recognize the contribution of academia.

And, just days away from the World Conference on International Telecommunications (WCIT-12), the adoption of the Resolution inviting ITU Member States to refrain from taking any unilateral and/or discriminatory actions that could impede another Member State from accessing public Internet sites underlines ITU's commitment to a free and inclusive information society.

This should send a strong message to the international community about accusations that ITU's membership wishes to restrict the freedom of speech. Clearly the opposite is true. It is in this spirit – fostering an Internet whose benefits are open to all – that I would like to head into WCIT-12.

Revised Resolutions on Technology Watch, climate change, international naming, numbering, addressing and identification resources; Internet domain names and addresses; security; WSIS; IPv6 will serve to refine our mandate on these important issues.

Ladies and Gentlemen.

Let me reserve my warmest gratitude for our Chairman.

Thanks to your able guidance and your confident leadership, patience and humour, we have been able to steer a clear course through some turbulent waters.

It is with great pleasure that I present you with the ITU silver medal in recognition of your work here and your constant support of ITU over the years.

Mr Mohammed Gheyath's father is here with us and I would like to welcome him. I imagine his pride in being the father of such a wonderful son, who led us during these last two weeks, with masterly patience, competency, and above all efficiency.

ITU is where east and west meet north and south, where we all join together, discuss and agree. A true society with all its diversity, complexities, complementariness, but above all this, a spirit of compromise, as we share the most important thing in common – our planet, Earth.

I truly believe that we have emerged from this Assembly with a renewed strength and confidence that will help us to maintain ITU-T's role as the key player helping to define the next generation of ICTs and connecting the world.

I expect you are all looking forward to getting home to your families. So let me simply thank you once again and wish you a safe trip home.

Thank you.

Annex D

Closing address at WTSA-12
Mr Mohammed Gheyath,
Chairman of the World Telecommunication Standardization Assembly,
(29 November 2012)
Dubai, United Arab Emirates

H.E. Hamadoun Touré, Secretary-General, International Telecommunication Union,
Mr Houlin Zhao, Deputy Secretary-General, ITU,
Mr Malcolm Johnson, Director, Telecommunication Standardization Bureau, ITU,
Mr François Rancy, Director, Radiocommunication Bureau, ITU,
Mr Brahima Sanou, Director, Telecommunication Development Bureau, ITU
Excellencies, ladies and gentlemen, heads and members of participating delegations at the World Telecommunication Standardization Assembly (WTSA) in Dubai,

For the past two weeks, the city of Dubai has hosted the proceedings of this assembly. I trust that you have enjoyed your stay in the city. I know that you have been extremely busy during this time with meetings of the assembly but, nevertheless, I do hope you have found time to see the many landmarks and sights for which the United Arab Emirates is famous.

On the occasion of the national day of the United Arab Emirates, which falls on 2 December, I would be remiss if I failed to extend, on your behalf and on behalf of ITU, warmest greetings and best wishes to His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, to His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President of the UAE, to their Highnesses the members of the Supreme Council of the UAE, and to the noble people of the Emirates. I ask God almighty to bestow further progress and prosperity upon us, and to continue to bless us with peace and security.

Ladies and gentlemen,

Two weeks ago, you honoured me by entrusting me with the task of chairing the assembly. It was a great responsibility, and there was little time to complete the many tasks born of four years of considerable effort, labour and study.

I will not hide from you the fact that, when I assumed the chairmanship, the words of support and encouragement I received from H.E. Dr Hamadoun Touré, the Secretary-General, and Mr Mohamed Al-Ghanim, Director-General of the Telecommunications Regulatory Authority (TRA), greatly facilitated my task and spurred me on to strive to the very best of my ability to be equal to the honour conferred on me, in order to achieve the best possible results serving the common interests of Member States and ITU-T.

At the outset, I would like to extend profuse gratitude for the confidence shown in me by the UAE in nominating me for the chairmanship of this assembly. I am proud to represent my country at this major international gathering, which is being held for the first time in the Middle East.

In this regard, I must single out for special thanks the Board of Directors of the TRA and its Director-General, Mr Mohamed Al-Ghanim, for giving me the opportunity to serve as chairman of the assembly. It is an honour of which I am proud and which I hope I have discharged in a way that befits the TRA and highlights the significant role of its outstanding staff in hosting such international events so competently and efficiently.

Ladies and gentlemen,

The responsibility which you vested in me was not an easy one. Many important and sensitive subjects were put before the assembly, and the time available to address them was very short. However, I greatly appreciate the constant presence, wise counsel and valuable advice I received from the ITU Secretary-General, Dr Hamadoun Touré, during the days of the assembly. Here, ladies and gentlemen, permit me to wear two hats – one in my capacity as representative of the UAE and the other as chairman of the sixth WTSA – so as to take this opportunity to extend sincere gratitude and appreciation to Dr Touré for the remarkable activity and constructive initiatives witnessed by ITU during his tenure in the post of Secretary-General. These have undoubtedly helped to strengthen the Union and contributed to fostering its leading international role. And he is still striving to achieve more, with a clear and sharp strategic vision to serve the common interest of all ITU Member States. I believe without any doubt that Dr Hamadoun Touré's legacy in promoting ITU will not be forgotten and will have a lasting place in the Union's history.

Thanks go to Mr Houlin Zhao, ITU Deputy Secretary-General, for the way he has supported the assembly proceedings and for his efforts in support of the administration and development of the Union.

Nor do I forget the constant support, assistance, opinions and advice provided to me by Mr Malcolm Johnson, Director of TSB, during the days of the assembly; for that, I am most gratefully appreciative. Given his experience of ITU-T business, his opinions and advice were extremely influential in proposing appropriate compromise solutions.

On your behalf, I would like to extend gratitude and appreciation to Mr Johnson for his remarkable and considerable efforts during his two terms of office at the helm of ITU-T. During this time, the work of the Sector has witnessed a significant leap forward and a constant increase in the number of Sector Members. Despite ITU-T's limited resources, Mr Johnson has been able to make many significant achievements, drawing on his extensive connections and vast experience of the work of the Union.

Furthermore, I would like to extend profound gratitude to the committee chairmen and vice-chairmen, who have spared no effort during the past two weeks to complete the work entrusted to them competently and efficiently, and who have always been keen to submit the output of their meetings with a minimum of square brackets, thus greatly facilitating my task in the plenary meetings.

And thanks go to all of you, ladies and gentlemen, for your efforts and consistent commitment to the work of the committees. I have certainly benefited greatly from your expertise, which has been so evident during your contributions and discussions at assembly meetings. I thank you for the flexibility you have shown in discussions, your acceptance of the opinion of others and your indulgence in accepting compromise solutions put forward during group meetings and in the plenary meetings.

Ladies and gentlemen,

This two-week gathering has been a consolidation of the tireless activity and major efforts deployed by the ITU-T study groups over the past four years. In this regard, I would like to express, in my capacity as chairman of the assembly and on behalf of you all, deep gratitude and thanks to the chairman and vice-chairmen of the Telecommunication Standardization Advisory Group and everyone who took part in the work of TSAG, as well as to the chairmen and vice-chairmen of the ITU-T study groups and everyone who took part in the work of these groups, for their great efforts and constant endeavour over the past four years. These efforts were effective in generating positive outcomes that facilitated assembly business and helped produce recommendations and resolutions to serve the common interest. It was a generous gesture on the part of the Director of TSB to award them a certificate of appreciation as a token of appreciation for their major efforts in leading the work of ITU-T groups. And I do not forget our debt of gratitude to the member administrations which gave their experts the opportunity to lead these groups and participate in their work, although we are fully aware of how busy they are.

Similarly, I would like to extend profuse gratitude to the UAE Administration for its huge efforts in hosting this session. I extend grateful appreciation to the unknown army who worked night and day behind the scenes to prepare for this assembly, on top of the considerable burdens and duties of their normal jobs. I would single out for special mention my friend and colleague, Tariq al-Awadhi, for his constant support before and during the conference, and for the advice and suggestions he gave me. He passed on to me much of the expertise he acquired in the course of his chairmanship of the World Radiocommunication Conference (WRC), held in Geneva at the beginning of this year. His successful chairmanship of that conference resulted in everyone who took part being recognized with an award.

I could not forget the considerable efforts deployed by ITU in preparing for the conference, and would like to extend gratitude and appreciation to the ITU secretariat and its administrative and technical services which, as we know, always operate at a high level of efficiency in the performance of their duties and in the management of the meetings and conferences organized by the Union. I am particularly grateful to the simultaneous interpretation service, on which we placed a heavy load. At all times, it displayed a readiness to cooperate and keep up with us when we were forced to work for long hours after the scheduled working day. To all of them go our gratitude and thanks. I would like to say a special thank you to my secretary during the assembly, Ms Judith Quist, for her indispensable efforts and support. She was an enormous help to me in organizing and coordinating my office business during the two weeks, while I was busy with numerous side meetings.

Last but not least, ladies and gentlemen, allow me in closing to extend the gratitude and appreciation which is a duty I owe, out of thankfulness, fidelity and devotion – gratitude for what I owe them and out of fidelity and devotion for what they deserve from me: I would like to offer profuse thanks and appreciation to my dear parents – may God keep them safe – for their help and support to me through constant prayer for my success and good fortune and that I might win people's hearts and affection. I praise God Almighty that He answered their prayer.

Furthermore, I could not forget the considerable support and help I have received from my wife and children, who encouraged me and put up with my constant pre-occupation during the days of the conference itself and the period preparing for it. The way they helped and stood beside me was the very best support. They have all my thanks and appreciation and all my love.

Ladies and gentlemen,

It was an ambition of the UAE to host this gathering. Through tireless work, constant effort and the will of God and with the support of our wise leadership, we at the TRA were able to realize this ambition. Indeed, we are honoured to host three international events with ITU this year. ITU TELECOM World was held at the Dubai World Trade Centre last October. We are honoured to be hosting and chairing WTSA-12. And the World Conference on International Telecommunications, which has not been held since Melbourne, Australia, in 1988, will take place in the first half of this coming December. This is, perhaps, an endorsement of the approach formulated for us by our wise leadership. This approach was summarized by Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE, in words with which I shall conclude my address: *It is a fine thing to dream of the future, but we are not content with dreams alone. We strive and endeavour to achieve them. Ambitions are great but dreams are greater*.

Thank you and may the peace and blessings of God be upon you.

Annex E

WTSA-12 decisions relative to resolutions

Table 1: Revised resolutions

#	Title
1	Rules of procedure of the ITU Telecommunication Standardization Sector
2	ITU Telecommunication Standardization Sector study group responsibility and mandates
7	Collaboration with the International Organization for Standardization and the International Electrotechnical Commission
11	Collaboration with the Postal Operations Council of the Universal Postal Union in the study of services concerning both the postal and the telecommunication sectors
18	Principles and procedures for the allocation of work to, and coordination between, the ITU Radiocommunication and ITU Telecommunication Standardization Sectors
20	Procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources
22	Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies
29	Alternative calling procedures on international telecommunication networks
31	Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Standardization Sector
32	Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector
33	Guidelines for strategic activities of the ITU Telecommunication Standardization Sector
34	Voluntary contributions
35	Appointment and maximum term of office for chairmen and vice-chairmen of study groups of the Telecommunication Standardization Sector and of the Telecommunication Standardization Advisory Group
38	Coordination among the three ITU Sectors for activities relating to International Mobile Telecommunications
40	Regulatory aspects of the work of the ITU Telecommunication Standardization Sector
43	Regional preparations for world telecommunication standardization assemblies
44	Bridging the standardization gap between developing and developed countries
45	Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group
47	Country code top-level domain names
48	Internationalized (multilingual) domain names
49	ENUM
50	Cybersecurity
52	Countering and combating spam
54	Creation of, and assistance to, regional groups
55	Mainstreaming a gender perspective in ITU Telecommunication Standardization Sector activities

Table 1: Revised resolutions

57	Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest
58	Encourage the creation of national computer incident response teams, particularly for developing countries
59	Enhancing participation of telecommunication operators from developing countries
60	Responding to the challenges of the evolution of the identification/numbering system and its convergence with IP-based systems/networks
61	Countering and combating misappropriation and misuse of international telecommunication numbering resources
62	Dispute settlement
64	IP address allocation and facilitating the transition to and deployment of IPv6
65	Calling party number delivery, calling line identification and origin identification
66	Technology watch in the Telecommunication Standardization Bureau
67	Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing
68	Implementation of Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference on the evolving role of the World Telecommunication Standardization Assembly
69	Non-discriminatory access and use of Internet resources
70	Telecommunication/information and communication technology accessibility for persons with disabilities
71	Admission of academia to participate in the work of the ITU Telecommunication Standardization Sector
72	Measurement concerns related to human exposure to electromagnetic fields
73	Information and communication technologies, environment and climate change
74	Admission of Sector Members from developing countries in the work of the ITU Telecommunication Standardization Sector
75	The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society
76	Studies related to conformance and interoperability testing, assistance to developing countries1, and a possible future ITU Mark programme

Table 2: New resolutions

Note: The final Resolution numbers were added subsequently.

#	Title
77	Standardization work in the ITU Telecommunication Standardization Sector for software-defined networking
78	Information and communication technology applications and standards for improved access to e-health services
79	The role of telecommunications/information and communication technologies in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it
80	Acknowledging the active involvement of the membership in the development of ITU Telecommunication Standardization Sector deliverables
81	Strengthening collaboration
82	Strategic and structural review of the ITU Telecommunication Standardization Sector

Table 3: Resolutions unchanged

#	Title
Not Any	

Table 4: Resolutions deleted

#	Title
17	Telecommunication standardization in relation to the interests of developing countries
26	Assistance to regional groups of Study Group 3
53	Establishment of a workshop and seminar coordination group
56	Roles of TSAG and ITU-T study group vice-chairmen from developing countries
63	Studies regarding nomadic telecommunication services and applications

Annex F

WTSA-12 decisions relative to Recommendations

Table 1: Revised Recommendations

#	Title
ITU-T A.1	Work methods for study groups of the ITU Telecommunication Standardization Sector
ITU-T A.2	Presentation of contributions to the ITU Telecommunication Standardization Sector
ITU-T A.4	Communication process between the ITU Telecommunication Standardization Sector and forums and consortia
ITU-T A.5	Generic procedures for including references to documents of other organizations in ITU-T Recommendations
ITU-T A.6	Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations
ITU-T A.7	Focus groups: Establishment and working procedures
ITU-T A.11	Publication of ITU-T Recommendations and WTSA proceedings
ITU-T D.195	Time-scale for settlement of accounts for international telecommunication services

Table 2: New Recommendations

#	Title
ITU-T Y.2770	Requirements for deep packet inspection in next generation networks
ITU-T G.8113.1	Operations, administration and maintenance mechanism for MPLS-TP in packet transport networks
ITU-T G.8113.2	Operations, administration and maintenance mechanisms for MPLS-TP networks using the tools defined for MPLS
ITU-T G.9901	Narrowband orthogonal frequency division multiplexing power line communication transceivers – Power spectral density specification
ITU-T G.9980	Remote management of customer premises equipment over broadband networks – CPE WAN management protocol

Table 3: Unchanged ITU-T A-series Recommendations

#	Title
ITU-T A.8	Alternative approval process for new and revised ITU-T Recommendations
ITU-T A.12	Identification and layout of ITU-T Recommendations
ITU-T A.13	Supplements to ITU-T Recommendations
ITU-T A.23	Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) on information technology
ITU-T A.31	Guidelines and coordination requirements for the organization of ITU-T seminars and workshops

Section 2 – Committee reports to the Plenary

2.1 – Committee 2: Budget Control

Chairman: Mr Kyu-Jin WEE (Republic of Korea)

1 Budget Control Committee

The Budget Control Committee held three meetings during the World Telecommunication Standardization Assembly (WTSA-12) under the Chairmanship of Mr. Kyu-jin WEE (Republic of Korea), assisted by Vice-Chairmen Mrs. Elvira Sultanova (Kyrgyzstan) and Mr. Abdullah Al-Mubadal (Saudi Arabia), and considered the issues arising from its terms of reference.

2 Draft time management plan / List of proposals to be examined by WTSA / Terms of reference

The draft time management plan, the list of proposals to be examined and the terms of reference relative to Committee 2 were presented and approved (Document DT/3 (Rev. 2), DT/1 and DT/4). The agenda of meetings of Committee 2 are in documents ADM2 and ADM30.

3 Agreement between the Government of the United Arab Emirates and the ITU

In accordance with Resolution 77 of the Plenipotentiary Conference (Rev. Guadalajara, 2010), Resolution 5 of the Plenipotentiary Conference (Rev. Guadalajara, 2010) and Resolution No 83 (amended) of the ITU Council concerning the organization, financing and liquidation of the accounts of ITU conferences and meetings, the Government of the United Arab Emirates and the ITU concluded an agreement concerning the holding, organization and financing of the World Telecommunication Standardization Assembly (WTSA-12) and the holding, organization and financing of the Global Standardization Symposium of the International Telecommunication Union (GSS).

The Budget Control Committee took note of the agreement (Document 37) and warmly thanked the Government of the United Arab Emirates for the excellent organization and facilities provided for the Assembly.

4 Financial responsibilities of conferences

The attention of Committee 2 was drawn to No. 115 of Article 18 of the Constitution of the International Telecommunication Union and to Nos 488 and 489 of Article 34 of the Convention of the International Telecommunication Union, concerning the financial responsibilities of conferences (Document 34 and DT/10).

Notes from the Chair of Committee 2 to the Chairs of Committee 3, Committee 4 and Working Groups were sent by documents 80 and 81.

5 Contributions to the expenses of the World Telecommunication Standardization Assembly (WTSA-12)

The Committee took note of the amount that non-exempted international organizations and Sector Members (other than ITU-T Members) would have to pay to defraying the expenses of the Conference (Document 33).

As at 27 November 2012, two non-exempted Sector Members (SAMENA and AfriNIC) were registered at the Assembly.

6 Budget of the World Telecommunication Standardization Assembly 2012)

At its 2011 session, the Council approved by Resolution 1337 the budget of the World Telecommunication Standardization Assembly (WTSA-12) for the biennium 2012-2013, amounting to CHF 1 751 000, of which CHF 970 000 are foreseen for documentation (Document 32).

The estimated expenditure of the WTSA-12 as at 26 November 2012 indicates an amount of 170 kCHF of unused appropriations excluding Documentation costs. An excess of expenditure of 120 kCHF is forecast for the cost of documentation due to higher volumes than planned. Total costs including documentation are expected to be 50 kCHF below budget. (DT/71 and Annex A to this report).

7 Report on estimated financial needs up to WTSA-16 and ITU-T expenditure for the years 2008 to 2012

The report on estimated financial needs up to WTSA-16 and ITU-T expenditure for the years 2008 to 2012 (Document 31) was presented and examined in detail. The framework provided by Council Resolution 1337 (biennial budget of the Union for 2012-2013) and Decision 5 (Rev, Guadalajara, 2010) was recalled.

In connection with the financial needs for the period up to 2016, Canada stressed the importance to avoid duplications and optimize the use of resources of the Union.

As an example it was pointed out that any capacity building initiatives and other activities of ITU-T in relation to Resolution 44 (Rev. Johannesburg, 2008) on bridging the standardization gap between developing and developed countries have to be closely monitored and coordinated with the Development Sector (ITU-D).

With reference to Annex 2 of Decision 5 (Rev, Guadalajara, 2010) on measures to reduce expenditure, a concern was also expressed by the Chairman of the Telecommunication Standardization Advisory Group (TSAG) with regard to the duration of the last TSAG meeting prior to WTSA-12. Up to three days of interpretation plus an additional day without interpretation are provided in the Budget of the Union for the annual TSAG meetings. The final TSAG meeting was held over 2 ½ days in June 2012. It was commented that the allotted time was insufficient for TSAG to prepare the WTSA in the final year of the study cycle, and it was proposed that in the future enough flexibility should be allowed so as to be able to extend the duration of the final TSAG meeting to ensure the work of the advisory group is thorough and complete. Germany also expressed its support to this proposal.

8 Resolution 34 (Rev. Johannesburg, 2008), *Voluntary contributions*

In relation to proposed modifications to Resolution 34 on voluntary contributions, reference to Document 29 was made, and the Arab States Common Proposal contained in Document 64 (Add.7/1) was presented by Sudan.

The following text was endorsed by the Committee as a new Resolves 2, the current Resolves 2 becoming Resolves 3:

"to invite Sector Members and Associates to finance voluntarily the participation of developing countries, and in particular the remote participation using electronic working methods, in ITU-T meetings and workshops".

The proposed revision of Resolution 34 was transmitted to the Editorial Committee for its consideration.

9 Financial implications of decisions and resolutions of the WTSA-12

As of 27 November 2012, the Budget Control Committee has identified several areas that might have some financial impact (ref. DT/76 Rev1, Documents 101, 102 & 107).

The estimated financial impact is indicative and will be further reviewed in Council at its 2013 session when adopting the 2014-2015 budget. The Chief of Financial Resource Management Department informed the Committee that it will be difficult to balance the 2014-2015 budget with these Decisions and Resolutions that require additional financial finding.

For 2013 the TSB will endeavour to accommodate the new requirements within the approved 2012-2013 budget, although this may be difficult. Other sources of financing may be considered if necessary.

The Director of TSB indicated that the full implementation of WTSA-12 Decisions and Resolutions will be difficult to achieve with the current resources of the TSB, and that the implementation of the 2012 programme of activities has only been possible thanks to the availability of some voluntary funding. He explained that all cost efficiency measures are being considered and TSB is working closely with other Bureaux, in particular with the Development Bureau (BDT), that task forces have been established across the ITU such as the task force on climate change and a task force to coordinate all ITU workshops.

Annex B includes a summary table of the potential financial implications of Decisions and Resolutions of WTSA-12, the cost assessment, as well as the list of Decisions and Resolutions of WTSA-12 with potential financial implications.

In summary, annual costs for staff resources, E-learning, gender, Strategic and Structural Review Committee add-up to kCHF 720. The incremental costs for workshops and reports, as well as the cost increase for fellowships, interpretation and translation in relation to Resolution 44, will have to be determined by Council when establishing the budget for ITU-T.

10 The Plenary meeting is requested to consider and approve this Report, which will then be forwarded by the Secretary-General, together with the Comments of the Plenary meeting, for submission to the 2013 session of the Council.

ANNEX A

Budget of the World Telecommunication Standardization Assembly 2012

Report as at 26 November 2012 *Amounts in thousands of Swiss francs*

	Budget 2012-2013	**Actual Expenditure**	**Estimated Commitments**	**Forecast Balance**
Staff costs	518	4	434	80
Other staff costs	32	4	2	26
Travel on duty	111	43	68	0
Contractual services	40	25	15	0
Rental and maintenance	40	0	0	40
Materials and supplies	20	6	0	14
Public utilities	10	0	0	10
Miscellaneous	10	0	10	0
SUB-TOTAL	781	82	529	170
Translation (3 080 pages)	527	526	51	-50
Composition (4 200 pages)	243	351	34	-142
Reprography (1 400 000 pages)	200	110	18	72
DOCUMENTATION COSTS	970	987	103	-120
TOTAL	1,751	1,069	632	50

ANNEX B

Potential financial implications of decisions and resolutions of this assembly

Resolution or Recommendation	Cost category	Estimated costs (in Swiss Francs)
Res. 44, 54	Staff resources: one additional staff	165 000/ year (NOTE)
RES. 72, 73, 79	Staff resources: one additional staff	165 000/ year (NOTE)
RES. 76	Staff resources: one additional staff	165 000/ year
RES. 44, 54, 72, 73, 78, 79	Hiring of experts / contractual services for the holding of workshops	20 000/workshop (NOTE)
RES. 72, 73	Hiring of experts / contractual services for the development of reports	15 000/report
RES. 44	Hiring of experts / contractual services for the development of E-Learning applications	70 000/year (2 E-Learning applications/ year)
RES. 55	Contractual services for gender mainstreaming training	20 000/year
RES. 54, 72, 73, 78, 79	Travel in connection with workshops and meetings	10 000/workshop (NOTE)
RES. 44	Fellowships	Budgetary increase to be determined by Council
RES. 44	Interpretation	Budgetary increase to be determined by Council
RES. 44	Translation of documents	Budgetary increase to be determined by Council
RES. 82	Fellowships	30 000/ year
RES. 82	Interpretation	90 000/ year
RES. 82	Translation of reports to TSAG	15 000/ year
Rec. ITU-T A.7	Focus groups: Establishment and working procedures	No incremental increase in costs
Rec. ITU-T A.11	Publication of ITU-T Recommendations and WTSA proceedings	Potential increase in the sales of publications To be determined by Council
RES. 32	Other costs	Costs and benefits to be reported to TSAG
NOTE – This also includes the estimated impact of the decision to create three additional regional groups of ITU-T study groups (see §5 of Doc. 111r1).		

COST ASSESSMENT

B.1 TSB staff resources

Additional staff should be considered in view of the new actions proposed with regard to:

- Res. 44, Res. 54 and decision to create three additional regional groups: one staff
- Res. 72, Res. 73 and ADD Res. 79: one staff
- Res. 76: one staff

Annual cost is estimated at 165 kCHF for one staff, 495 kCHF for three staff.

Res. 76: The Conformance and Interoperability programme requires an additional post of engineer for the implementation of the action plan agreed by the Council at its 2012 session (C12/91) as referred to the Report by the ITU Secretary-General to the Council 2012 (C12/48).

B.2 Hiring of experts / contractual services

Ref. MOD Res. 44, Res. 54, Res.55, Res. 70, Res. 72, Res.73, and NEW Res. 78 and Res. 79.

- The implementation of the above will imply the hiring of experts under Special Service Agreements (SSA) contracts in connection with the organization of seminars and workshops, and for E-learning. In addition, Res. 72 and Res. 73 will require experts under SSA contracts in connection with the development of reports.
- The cost of an SSA contract is estimated at 20 kCHF on average. The number of seminars and workshops, as well as the number of reports to be developed, will determine the overall cost impact.
- With regard to Res. 55, gender mainstreaming training is estimated at a cost of 20 kCHF.
- With regard to Res. 70, the level of financial resources to be made available will be determined by Council. Extrabudgetary resources may be used for that purpose, including the existing voluntary fund for accessibility.

B.3 Cost of travel

Ref. MOD Res. 54, Res. 72, Res.73, decision to create three additional regional groups, NEW Res. 78 and NEW Res. 79.

The holding of workshops entails staff travel. The average cost for one workshop, assuming two staff travelling, is estimated at 10 kCHF. The number of workshops will determine the overall cost impact.

B.4 Cost of fellowships

Ref. MOD Res. 44, decision to create three additional regional groups and NEW Res. 82

- The current ITU-T budget for fellowships is 290 kCHF (excluding WTSA). The cost impact will depend upon the incremental factor. There are currently 49 Low Developed Countries (LDCs) and 17 Low Income Countries (LICs). As a benchmark, based on an average cost of 3 kCHF for one fellowship, the cost of one fellowship to each eligible country comes up to 200 k CHF. The level of increase will have to be determined by Council.

- The award of fellowships to persons with disabilities will have to be further examined. Any budgetary impact will have to be determined by Council.

- The award of fellowships in connection with the review Committee is estimated at a cost of 30 kCHF, assuming 10 fellows at a cost of 3 kCHF each.

B.5 Cost of languages

Ref. MOD Res. 44, 67 and 70, decision to create three additional regional groups and NEW Res. 82

- The current ITU-T budget for interpretation is 340 kCHF (excluding WTSA). One day of interpretation in six languages costs approximately 14 k CHF. The level of increase will have to be determined by Council.

- The current ITU-T budget for translation foresees some 9 300 pages to be translated annually (excluding WTSA). This represents approximately a cost of 1 600 kCHF based on an average cost of 175 CHF per page. The level of increase will have to be determined by Council.

- With regard to Res. 70, sign language interpretation might be considered as a new item with potential financial implication. The source of financing should be determined by Council.

- With regard to the Review Committee, additional commitments will occur for interpretation during the meetings and translation of the committee reports going to each TSAG meeting. Interpretation in six languages is estimated at a cost of 90 kCHF per meeting of five days. Translation is estimated at a cost of 15 kCHF per meeting.

B.6 Other costs

Ref. MOD Res. 32: Provide appropriate electronic participation or observation facilities (e.g. webcast, audioconference, webconference/document sharing, videoconference, etc.) in ITU-T meetings, workshops and training courses for delegates

- The implementation of this Resolution entails costs as well as benefits. Status on costs and benefits will be reported to TSAG. Any budgetary impact will have to be determined by Council.

B.7 Decisions and Resolutions of the Assembly (WTSA-12) with potential financial implications

B.7.1 Resolution 32, *Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector* (Doc. 107)

1. maintain the EWM Action Plan to address the practical and physical aspects of increasing the EWM capability of ITU T;

2. identify and review costs and benefits of the action items on a regular basis;

3. report to each meeting of TSAG the status of the Action Plan, including the results of the cost and benefit reviews described above;

4. provide the executive authority, budget within TSB, and resources to execute the Action Plan with all possible speed;

5. develop and disseminate guidelines for the use of ITU T EWM facilities and capabilities;

6. take action, in order to provide appropriate electronic participation or observation facilities (e.g. webcast, audioconference, webconference/document sharing, videoconference, etc.) in ITU-T meetings, workshops and training courses for delegates unable to attend events in person and to coordinate with BDT to assist in the provision of such facilities; and

7. provide an ITU-T website that is easy to navigate to find all relevant information.

B.7.2 Resolution 44, *Bridging the standardization gap between developing and developed countries* (DT/27-Rev 1 WG4B/27/1)

1. increase the ITU-T budgetary provisions for fellowships, interpretation and translation of documents for TSAG, ITU-T Study Groups and Regional Study Group Meetings

2. to carry out the necessary studies on the role of innovation management and innovation stimulation programmes on bridging the standardization gap between the developed and developing countries

3. to take all necessary measures to facilitate the organization of meetings and workshops of regional groups

4. to enhance use of electronic channels such as webinars or e-learning for education and training on implementation of ITU-T Recommendations

5. give the necessary assistance to the Regional Groups of ITU-T Study Groups;

6. give assistance to the regional organizations for the setting up and management of the standardization bodies,

7. Establish a national standardization secretariat in developing countries

8. Developing a set of guidelines on how to apply ITU-T Recommendations, in particular on manufactured products and interconnection, with emphasis on Recommendations having regulatory and policy implications.

9. Provide advice and assistance on how to better utilize and adopt ITU-T Recommendations in national standards

10. Compiling and maintaining a database containing information on new technologies that are standardized, as well as products that are compliant to ITU-T Recommendations.

11. Organizing capacity-building events on the application of specific Recommendations and on methods of examining compliance of manufactured products with these Recommendations.

B.7.3 Resolution 54, *Creation of, and assistance to, regional groups* (DT/33 WG4B/33/1)

1. continue to provide specific assistance to the current Study Group 3 as well as other and future regional groups,

2. encourage the continuing development of computerized application tools related to their cost methodology by the members of the regional groups of Study Group 3;

3. take appropriate steps to facilitate meetings of the current and future regional groups of Study Group 3 and promote the necessary synergies between the two Sectors.

B.7.4 Resolution 55, *Mainstreaming a gender perspective in ITU Telecommunication Standardization Sector activities* (Doc. 101 B4/91/2)

2. to organize gender mainstreaming training for the staff

B.7.5 Resolution 67, *Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing* (Doc. 101 COM3/96/2)

2. to translate all TSAG reports in all the languages of the Union

B.7.6 Resolution 70, *Telecommunication/information and communication technology accessibility for persons with disabilities* (Doc. 101 B4/91/4)

2. to review the accessibility of ITU T services and facilities

7. to contribute to the development of an ITU-wide internship programme for people with disabilities

9. to consider using accessibility resources in the meetings organized by ITU

B.7.7 Resolution 72, *Measurement concerns related to human exposure to electromagnetic fields* (Doc. 87 COM4/87/6)

1. to support the development of reports identifying the needs of developing countries on the issue of assessing human exposure to EMF and submit the reports as soon as possible to ITU-T Study Group 5 for its consideration and action in accordance with its mandate;

2. to hold workshops in developing countries with presentations and training on the use of equipment employed in assessing human exposure to RF energy;

3. to support developing countries in implementing this resolution while they establish their regional centres equipped with test benches for monitoring conformance of telecommunication terminal equipment and human exposure to electromagnetic waves using, among other things, the modalities listed in Resolutions 44 and 76 of this assembly in the context of the development of the regional test centres and Resolution 177 (Guadalajara, 2010) of the Plenipotentiary Conference,

B.7.8 Resolution 73, *Information and communication technologies, environment and climate change* (Doc. 97 COM4/97/1)

3. to launch pilot projects aimed at bridging the standardization gap on environmental sustainability issues in particular in developing countries;

4. to support the development of reports on ICTs, the environment and climate change taking into consideration relevant studies in particular the ongoing work of ITU-T Study Group 5, including issues related to, inter alia, green data centers, smart buildings, green ICT procurement, cloud computing, energy efficiency, smart transportation, smart logistics, smart grids, water management, adaptation to climate change and disaster preparedness, and how the ICT sector contributes to annual reductions in GHG emissions and submit the reports as soon as possible to ITU-T Study Group 5 for its consideration;

5. to organize, in close collaboration with the Directors of the Telecommunication Development (BDT) and Radiocommunication (BR) Bureaux, workshops and seminars for developing countries, to raise awareness and identify their particular needs and challenges on environment and climate change issues

B.7.9 Resolution 76, *Studies related to conformance and interoperability testing, assistance to developing countries and a possible future ITU Mark programme* (Doc. 90 B3/90/2)

1. in cooperation with the Radiocommunication Bureau and the Telecommunication Development Bureau, to continue to conduct as necessary exploratory activities in each region in order to identify and prioritize the problems faced by developing countries related to achieving interoperability of telecommunication/ICT equipment and services

2. in cooperation with the Director of the Telecommunication Development Bureau based on results of instructs the Director of the Telecommunication Standardization Bureau 1 above, to implement the action plan agreed by the Council in its session of 2012 (C12/91) as referred to the Report by the ITU Secretary General to the Council 2012 (C12/48)

3. in cooperation with the Director of the Telecommunication Development Bureau to implement an ITU conformance and interoperability programme for a possible introduction of an ITU Mark in alignment with the Council 2012 decision in C12/91

4. to involve experts and external entities as appropriate

5. to submit the results of these activities to the ITU Council for its consideration and required actions

B.7.10 Decision to create three new regional groups (Doc. 111r1, §5)

1. ITU-T Study Group 2 Regional Group for the Americas (proposal in IAP/38A6/1)

2. ITU-T Study Group 5 Regional Group for the Americas (proposal in IAP/38A14/1)

3. ITU-T Study Group 13 Regional Group for Africa (proposal in AFCP/56A13/1)

B.7.11 Resolution 78, *Information and communication technology applications and standards for improved access to e-health services* (Doc. 87 COM4/87/7)

1. to give priority to expanding the scope of telecommunication/ICT initiatives in healthcare and to coordinate activities related to e-health among study groups, focus groups, working parties, and so forth

2. to pursue and strengthen the development of ITU activities in regard to telecommunication/ICT applications for e-health in order to contribute to the wider global e-health efforts

3. to work collaboratively with WHO, academia and other relevant organizations on activities related to e-health

4. to study the possibility of organizing a global conference in 2013 or 2015 for the standardization of e-health applications and uses of e-health protocols, in collaboration with WHO and other interested parties

5. to organize seminars and workshops on e-health for developing countries and gauge the needs of the developing countries, which are the countries with the greatest need for e-health applications

B.7.12 Resolution 79, *The role of telecommunications/information and communication technology in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it* (Doc. 97 COM4/97/2)

1. to pursue and strengthen the development of ITU activities in regard to handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it

2. to assist developing countries to undertake proper assessment of the size of e-waste

3. the handling and controlling of e waste and contribute to global efforts designed to deal with the increasing hazards which arise therefrom

4. to work in collaboration with the relevant stakeholders including academia and relevant organizations and to coordinate activities between the ITU study groups, focus groups, and other relevant groups relating to e-waste

5. to organize seminars and workshops to enhance awareness of the hazards of e-waste and the methods of treating it, particularly in developing countries, and gauge the needs of the developing countries, which are the countries that suffer most from the hazards of e-waste

B.7.13 Resolution 82, *Strategic and structural review of the ITU Telecommunication Standardization Sector* (Doc. 113 COM4/113/1)

1. to support the Review Committee by facilitating the activities in implementing this resolution

2. to provide fellowships to eligible developing countries

3. Interpretation to be provided

4. Translation of reports to TSAG

B.7.14 Recommendation ITU-T A.7, *Focus groups: Establishment and working procedures* (Doc. 102 COM3/96/7)

Financing of meetings and their preparation is accomplished by volunteer hosting in a similar manner to rapporteur groups, or on the basis of financial arrangements determined by the focus group provided there is no incremental increase in expenditures and no adverse impact on the normal work of the study groups and TSAG, except for encouraging the participation of persons with disabilities in accordance with resolves 3 and 4 of Resolution 175 of the Plenipotentiary Conference (Guadalajara, 2010), and for supporting the participation of representatives of developing countries in accordance with resolves 3 of Resolution 123 of the Plenipotentiary Conference (Rev. Guadalajara, 2010).

B.7.15 Recommendation ITU-T A.11, *Publication of ITU T Recommendations and WTSA proceedings* (Doc. 101 B4/91/6)

Procedures for publishing the proceedings of the World Telecommunication Standardization Assembly (WTSA)

2.2 – Committee 3: Working methods of ITU-T

Chairman: Dr Stephen Trowbridge (United States of America)

1 Introduction

1.1 The terms of reference for Committee 3 are contained in document DT4.

1.2 Committee 3 (Working methods of ITU-T) was chaired by Dr Stephen Trowbridge (USA) with the support of the vice-chairmen of the Committee, Messrs Musab Abdulla (Bahrain), Bruce Gracie (Canada), Andrey Mukhanov (Russian Federation) and Chaesub Lee (Republic Korea).

1.3 WTSA established two Working Groups under Committee 3 as follows:

- Working Group 3A of Committee 3, with Mr Olivier Dubuisson (France) as a Chairman
- Working Group 3B of Committee 3, with Mr Bruce Gracie (Canada) as a Chairman

1.4 Terms of reference of the Working Groups are given in DT4.

1.5 The meetings took into account the documents allocation to Committee 3 given in DT1 and worked out its general agenda as appears in DT6.

1.6 Committee 3 examined 78 proposals to Resolutions and Recommendations, established 10 drafting/informal consultation groups, held five meetings in ten sessions, the respective the reports can be found in documents DT15, DT31, DT64 and DT82.

1.7 Resolutions and ITU-T A-series Recommendations under the responsibility of Committee 3 are found in the Annex.

2 Results of the work of Committee 3

2.1 Resolutions

2.1.1 Revised Resolutions

Resolution 1, *Rules of procedure of the ITU Telecommunication Standardization Sector*

Per document DT4 Resolution 1 fall in the mandate of Working Group 3A where it was examined and revised. Committee 3 agreed on every piece of the revision in Resolution 1 except the portion in between the square brackets as shown in clause *considering* c) on the first page of Resolution 1.

Committee 3 requests Plenary to take decision on the text in between the square brackets and proceed with approval of Resolution 1 (Document 116).

Resolution 11, *Collaboration with the Postal Operations Council of the Universal Postal Union in the study of services concerning both the postal and the telecommunication sectors*

Resolution 11 was examined by Committee 3, revised based on the proposals received and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 11 as found in Document 88.

Resolution 18, *Principles and procedures for the allocation of work to, and coordination between, the ITU Radiocommunication and ITU Telecommunication Standardization Sectors*

Resolution 18 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 18 as found in Document 88.

Resolution 22, *Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies*

Resolution 22 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 22 as found in Document 89.

Resolution 31, *Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Standardization Sector*

Resolution 31 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 31 as found in Document 88.

Resolution 32, *Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector*

Per document DT4, Resolution 32 falls in the mandate of Working Group 3A where it was examined and revised. It was presented to the Committee 3 that agreed on the revision to Resolution 32.

Committee 3 requests Plenary to approve draft revised Resolution 32 as found in Document 89.

Resolution 33, *Guidelines for strategic activities of the ITU Telecommunication Standardization Sector*

Resolution 33 was examined by Committee 3. Interested parties put their heads together at the informal consultation group to agree on the principle points of revision to Resolution 33. Committee 3 agreed to forward draft revised Resolution 33 for Plenary, therefore

Plenary is requested to approve draft revised Resolution 33 as found in Document 89.

Resolution 35, *Appointment and maximum term of office for chairmen and vice-chairmen of study groups of the Telecommunication Standardization Sector and of the Telecommunication Standardization Advisory Group*

Committee 3 established a Drafting Group on Resolution 35 that examined the set of proposal and prepared the revised text of Resolution 35. Noting opposition from the Islamic republic of Iran, the meeting agreed to the text of Resolution 35 with the removal of square brackets around Annex A paragraph b) in the text received from the drafting group.

Plenary is requested to approve draft revised Resolution 35 as found in Document 89.

Resolution 38, *Coordination among the three ITU Sectors for activities relating to International Mobile Telecommunications*

Resolution 38 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 38 as found in Document 89.

Resolution 45, *Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group*

Committee 3 established a Drafting Group to look into the revision of Resolution 45. The group came back with the revised text of Resolution 45 that was agreed by Committee 3 to be forwarded for Plenary.

Plenary is requested to approve draft revised Resolution 45 as found in Document 90.

Resolution 53 - Establishment of a workshop and seminar coordination group

Resolution 53 received two proposals for suppression at this WTSA. Committee 3 examined those and agreed on the suppression of Resolution 53. The third WTSA-12 Plenary meeting held on 23 November 2012 suppressed Resolution 53.

Resolution 55, *Mainstreaming a gender perspective in ITU Telecommunication Standardization Sector activities*

Committee 3 established a Drafting Group on Resolution 55 that made an extensive review of the Resolution 55. Committee 3 agreed this revision to Resolution 55 to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 55 as found in Document 91.

Resolution 57, *Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest*

Resolution 57 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 57 as found in Document 89.

Resolution 66, *Technology watch in the Telecommunication Standardization Bureau*

Resolution 66 was examined by Committee 3, revised and agreed to be submitted to Plenary for approval.

Plenary is requested to approve draft revised Resolution 66 as found in Document 89.

Resolution 67, *Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing*

Per document DT4 Resolution 67 fall in the mandate of Working Group 3B where it was examined and substantively revised. It was presented to the Committee 3 that agreed on the revision to Resolution 67.

Committee 3 requests Plenary to approve draft revised Resolution 67 found in Document 89.

Resolution 68, *Implementation of Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference on the evolving role of the World Telecommunication Standardization Assembly*

Committee 3 established a Drafting Group on Resolution 68 to look at a number of proposals submitted for this Resolution. The group prepared the revised text of Resolution 68 that was reviewed and agreed by the Committee 3 for submission to the Plenary for approval.

Plenary is requested to approve draft revised Resolution 68 as found in Document 91.

Resolution 70, *Telecommunication/information and communication technology accessibility for persons with disabilities*

Committee 3 established a Drafting Group on Resolution 70 that made an extensive review of the Resolution 70. Committee 3 agreed this revision to Resolution 70 to be submitted to Plenary for approval. The text in taking into account a) is left in square brackets pending consideration in Committee 4 the possible merger of Resolution 44 with Resolution 70.

Committee 3 requests the plenary to adjust as necessary the text in square brackets in "taking into account a)" based on Committee 4 actions concerning Resolution 44, and is requested to approve draft revised Resolution 70 as found in Document 91.

Resolution 71, *Admission of academia to participate in the work of the ITU Telecommunication Standardization Sector*

A Drafting Group was established on Resolution 71 to review its revision. The group prepared the revised text of Resolution 71 that was reviewed and agreed at Committee 3 meeting.

Plenary is requested to approve draft revised Resolution 71 as found in Document 90.

Resolution 74, *Admission of Sector Members from developing countries in the work of the ITU Telecommunication Standardization Sector*

Resolution 74 was revised and agreed by Committee 3 for submission to Plenary for approval.

Plenary is requested to approve draft revised Resolution 74 as found in Document 89.

2.1.2 New Resolutions

Two new resolutions were agreed by Committee 3 after discussions in Drafting Groups per each. They are draft new Resolution 81 on strengthening collaboration and draft new Resolution 80 on acknowledging the active involvement of the membership in the development of ITU-T deliverables.

Draft new Resolution 81, *Strengthening collaboration*

A Drafting Group was established to elaborate the text of draft new Resolution 81. Square brackets are provided around the text of invites TSAG to indicate text that should be aligned with decisions of Committee 4 on the Strategic Review Committee.

Plenary is requested to align the text in square brackets under "invites TSAG" with the decisions of Committee 4 on the strategic review committee and to approve draft new Resolution 81 as found in Document 116.

Draft new Resolution 80, *Acknowledging the active involvement of the membership in the development of ITU Telecommunication Standardization Sector deliverables*

A Drafting Group was established to elaborate the text of draft new Resolution 80. Subsequent to the closure of the meeting of Committee 3, an editorial issue was discovered under "invites Member States". An attempt to resolve this issue was placed in square brackets to confirm the understanding.

Plenary is requested to confirm or amend the text as necessary in square brackets under "invites Member States" and to approve draft new Resolution 80 as found in Document 116.

3 Recommendations

3.1 Revised Recommendations

Recommendation ITU-T A.1, *Working methods for study groups of the ITU Telecommunication Standardization Sector*

Per document DT4 Recommendation ITU-T A.1 fall in the mandate of Working Group 3A where it was examined and revised. It was presented to the Committee 3 that agreed on the revision to Recommendation A.1.

Committee 3 requests Plenary to approve draft revised Recommendation ITU-T A.1 as found in Document 91.

Recommendation ITU-T A.2, *Presentation of contributions to the ITU Telecommunication Standardization Sector*

Recommendation ITU-T A.2 was revised and agreed by Committee 3 for submission to Plenary for approval.

Plenary is requested to approve draft revised Recommendation ITU-T A.2 as found in Document 90.

Recommendation ITU-T A.4, *Communication process between the ITU Telecommunication Standardization Sector and forums and consortia*

Recommendation A.4 was revised and agreed by Committee 3 for submission to Plenary for approval.

Plenary is requested to approve draft revised Recommendation A.4 as found in Document 90.

Recommendation ITU-T A.5, *Generic procedures for including references to documents of other organizations in ITU-T Recommendations*

Recommendation ITU-T A.5 was revised and agreed by Committee 3 for submission to Plenary for approval.

In addition to the above revision to Recommendation ITU-T A.5, Committee 3 instructs TSAG to investigate identified problems with referencing (noting WTSA-12 Contribution 55) to develop the necessary strengthening of the rules of Recommendation ITU-T A.5 or improvements needed in its application.

Plenary is requested to

- *approve draft revised Recommendation ITU-T A.5 as found in Document 116 including the correction captured in Document 108 Corr1;*

- *instruct TSAG to investigate identified problems with referencing (noting WTSA-12 Contribution 55) to develop the necessary strengthening of the rules of Recommendation ITU-T A.5 or improvements needed in its application.*

Recommendation ITU-T A.6, *Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations*

Recommendation ITU-T A.6 was revised and agreed by Committee 3 for submission to Plenary for approval.

Plenary is requested to approve draft revised Recommendation A.6 as found in Document 90.

Recommendation ITU-T A.7, *Focus groups: Establishment and working procedures*

A Drafting Group was established on Recommendation A.7 to review its revision. The group prepared the revised text of Recommendation A.7 that was reviewed and agreed at Committee 3 meeting.

Plenary is requested to approve draft revised Recommendation A.7 as found in Document 90.

Recommendation ITU-T A.11, *Publication of ITU T Recommendations and WTSA proceedings*

Recommendation ITU-T A.11 was revised and agreed by Committee 3 for submission to Plenary for approval.

Plenary is requested to approve draft revised Recommendation A.11 as found in Document 91.

3.2 Maintained Recommendations

Recommendations ITU-T A.8, ITU-T A.12, ITU-T A.13, ITU-T A.23 and its Annex A, ITU-T A.31 and Supplements 2 and 3 to the ITU-T A-series Recommendations were not proposed by TSAG for revisions and Members considered that they do not need any revision.

Committee 3 requests the Plenary Meeting to endorse the proposal to maintain Recommendations ITU-T A.8, ITU-T A.12, ITU-T A.13, ITU-T A.23 and its Annex A, ITU-T A.31 and Supplements 2 and 3 to the ITU-T A-series Recommendations unchanged.

Acknowledgments

Committee 3 Chairman expressed his sincere thanks to all the participants, Vice-Chairmen of Committee 3, all of whom enthusiastically took additional tasks to lead the Drafting Groups. He also thanks the TSB staff, Ms T. Kurakova, Mr G. Jones and Ms S. Scott for their support.

ANNEX

Resolutions and ITU-T A-series Recommendations under the responsibility of Committee 3

Resolutions	Document
Resolution 11 - *Collaboration with the Postal Operations Council of the Universal Postal Union in the study of services concerning both the postal and the telecommunication sectors*	91
Resolution 18 - *Principles and procedures for the allocation of work to, and coordination between, the ITU Radiocommunication and ITU Telecommunication Standardization Sectors*	88
Resolution 22 - *Authorization for the Telecommunication Standardization Advisory Group to act between world telecommunication standardization assemblies*	89
Resolution 31 - *Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Standardization Sector*	88
Resolution 32 - *Strengthening electronic working methods for the work of the ITU Telecommunication Standardization Sector*	89
Resolution 33 - *Guidelines for strategic activities of the ITU Telecommunication Standardization Sector*	89
Resolution 35 - *Appointment and maximum term of office for chairmen and vice-chairmen of study groups of the Telecommunication Standardization Sector and of the Telecommunication Standardization Advisory Group*	89
Resolution 38 - *Coordination among the three ITU Sectors for activities relating to International Mobile Telecommunications*	89
Resolution 45 - *Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group*	90
Resolution 53 - suppressed	89
Resolution 55 - *Mainstreaming a gender perspective in ITU Telecommunication Standardization Sector activities*	91
Resolution 57 - *Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest*	89
Resolution 66 - *Technology watch in the Telecommunication Standardization Bureau*	89
Resolution 67 - *Use in the ITU Telecommunication Standardization Sector of the languages of the Union on an equal footing*	90
Resolution 68 - *Implementation of Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference on the evolving role of the World Telecommunication Standardization Assembly*	91
Resolution 71 - *Admission of academia to participate in the work of the ITU Telecommunication Standardization Sector*	90
Resolution 74 - *Admission of Sector Members from developing countries in the work of the ITU Telecommunication Standardization Sector*	89

Resolutions with square brackets	Document
Resolution 1 - *Rules of procedure of the ITU Telecommunication Standardization Sector*	116
Resolution 70 - *Telecommunication/information and communication technology accessibility for persons with disabilities*	91
New Resolution 80 - *Acknowledging the active involvement of the membership in the development of ITU Telecommunication Standardization Sector deliverables*	116
New Resolution 81- *Strengthening collaboration*	116

ITU-T A-series Recommendations	Document
Recommendations ITU-T A.8, ITU-T A.12, ITU-T A.13, ITU-T A.23 and its Annex A, ITU-T A.31 and Supplements 2 and 3 to the ITU-T A-series Recommendations - unchanged	N/A
Recommendation ITU-T A.1 - *Work methods for study groups of the ITU Telecommunication Standardization Sector*	91
Recommendation ITU-T A.2 - *Presentation of contributions to the ITU Telecommunication Standardization Sector*	90
Recommendation ITU-T A.4 - *Communication process between the ITU Telecommunication Standardization Sector and forums and consortia*	90
Recommendation ITU-T A.5 - *Generic procedures for including references to documents of other organizations in ITU-T Recommendations*	116
Recommendation ITU-T A.6 - *Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations*	90
Recommendation ITU-T A.7 - *Focus groups: Establishment and working procedures*	90
Recommendation ITU-T A.11 - *Publication of ITU-T Recommendations and WTSA proceedings*	91

2.3 – Committee 4: Work programme and organization of ITU-T

Chairman: Mr Yoichi Maeda (Japan)

1 Introduction

1.1 The terms of reference for Committee 4 (Work programme and organization of ITU-T) are contained in DT/4.

1.2 Committee 4 was chaired Mr Yoichi Maeda (Japan) with the support of the vice-chairmen of the Committee, Mr Fabio Bigi (Italy), Ms Liu Duo (China), and Mr Hassan Talib (Morocco). The secretary of Committee 4 was Mr Simão De Campos Neto, with assistance of Mr Martin Euchner from TSB.

1.3 The committee held six sessions, and the respective reports can be found in Documents 73, 86, 98, 104, 110. The reports of Sessions 1 and 2 (73, 86) were agreed by WTSA Plenary, and the report of Sessions 3 and 4 (98, 104) were agreed by Committee 4 but not yet reviewed by the plenary. The report of Sessions 5 and 6 in doc 110 is submitted directly to the plenary, for its approval.

1.4 The meetings took into account the document allocation to Committee 4 given in in DT/1 and the topics listed in DT/9 and its Revision 1.

2 Study group structure

2.1 General

2.1.1 The discussions on the study group structure and mandates and allocation of Questions were based on the numerous member proposals received and allocated to Committee 4.

2.1.2 The agreements regarding the study group structure, titles, numbering, mandate and allocation of Questions are listed in 2.2 below. The number of ten study groups remains.

2.2 Individual study group's titles, mandates, Questions, etc.

2.2.1 The text of the Questions proposed by the study groups found in Documents 02, 04, 06, 08, 10, 12, 14, 16, 18, 20 (and its Add.1), and the amendments to Questions F/11, I/11, J/11, K/11, L/11, M/11, O/11, R/17 (document 99), were agreed by Committee 4.

2.2.2 Allocation of conformance and interoperability work

– Agreement to transfer the parent role of the JCA-CIT from SG17 to SG11.

– Agreement to transfer from SG17 to SG11 the part of QS/17 on TTCN-3. The concerned Study Groups are mandated to implement the necessary specific changes to the text of the applicable Questions.

2.2.3 Special arrangements for various Questions

– Questions A/9, F/9, G/9, H/9, J/9, and K/9 are to meet separately, except when topics of common interest require joint sessions

– SG9 to consider merging Question I/9 with another Question to improve efficiency

– Question K/9 to be closed after two meetings if no contributions are received

– WTSA requests that all SG chairmen make sure that accessibility is addressed in the work of their Study Groups.

– SG11 is requested to look into holding joint meeting of Question D/11 with other SG11 Questions to increase efficiencies as well as participation.

– Question I/11 (Internet of things test specifications) is to participate in the IoT-GSI.

– The meeting agreed to a request that questions maintained at this WTSA for which proposals were made for merger or closure present an activity report at the 2014 session of TSAG.

2.2.4 Change of Question text

– Islamic Republic of Iran was invited to submit a refined proposal for modified Questions QB/17, and QG/17 to ITU-T SG17 in the near future.

2.2.5 New Question proposals

– Islamic Republic of Iran was invited (and agreed) to submit a fleshed out proposal for new Question T/17 to ITU-T SG17 in the near future.

2.2.6 Collocation and sequencing of ITU-T study group meetings

Regarding collocation/sequencing of study group meeting, specific language was added into Resolution 2, Annex B, for the concerned study groups.

– Agreement that meetings of SGs 2 and 3 are to be held back-to-back.

– Agreement that SGs 9 and 16 need to meet collocated with the following provisions:

  - SG9:

    - When meeting in Geneva, Study Group 9 will hold collocated meetings with Study Group 16, except when SG9 holds collocated meetings with SG12 (see NOTE). The work of Study Group 9 on quality assessment will be coordinated with Study Group 12.

  - SG16:

    - When meeting in Geneva, Study Group 16 will hold collocated meetings with Study Group 9, except when SG9 holds collocated meetings with SG12 (see NOTE).

– Agreement that SGs 11 and 13 need to meet collocated but directs that:

  - SG11:

    - When meeting in Geneva, Study Group 11 will hold collocated meetings with Study Group 13 (see NOTE).

  - SG13:

    - When meeting in Geneva, Study Group 13 will hold collocated meetings with Study Group 11 (see NOTE).

NOTE - Joint rapporteur group activities of different study groups (under a GSI or other arrangements) shall be seen as complying with the WTSA expectations for collocation.

2.2.7 Allocation of cloud computing security work

Committee 4 agreed to the following compromise text regarding the allocation of cloud computing security work in ITU-T SG13 and SG17, and *invites the Plenary*

> *To ask ITU-T Study Groups 17 and 13 to collaborate to identify possible areas of cloud computing security studies for Study Groups 13 and 17 and present the suggestions to the TSAG meeting in June 2013 that is mandated to take decision in June 2013 meeting. In the meantime, Questions H/17 and H/13 should take advantage of the opportunity afforded by the February 2013 meeting of Study Group 13 and the April 2013 meeting of Study Group 17 to collaborate. Until TSAG makes a decision by consensus in June 2013, Questions H/13 and H/17 should continue as per the mandates in their current Questions. Such collaboration between ITU-T Study Groups 13 and 17 shall not be interpreted or prejudge the final decision of the June 2013 meeting of TSAG.*

3 Resolutions actions agreed at COM4 level

3.1 New Resolutions

- Draft new Resolution 77, *Standardization work in the ITU Telecommunication Standardization Sector for software-defined networking*, as found in Document 90;

- Draft new Resolution 78, *Information and communication technology applications and standards for improved access to e-health services,* as found in Document 88;

- Draft new Resolution 79, *The role of telecommunications/information and communication technology in combating and controlling e-waste from telecommunication and information technology equipment and methods of treating it*, as found in Document 90;

3.2 Revised Resolutions

- Resolution 2, *ITU Telecommunication Standardization Sector study group responsibility and mandates*, as found in Document 92;

  – Agreed to MOD the SG2 Lead Study Group roles to include “network resilience and recovery”

- Agreed to ADD the following Lead Study Group roles to SG11:
  - Lead Study Group for conformance and interoperability testing to SG11
  - Lead Study Group for Machine to Machine (M2M) signalling and protocols to SG11
- Agreed to ADD "Lead Study Group on driver distraction and voice aspects of car communication" to SG12
- Agreed to ADD "Lead Study Group for cloud computing" to SG13
- Agreed to ADD "Lead Study Group on smart grid" to SG15
- Agreed to MOD for "Lead Study Group on ubiquitous and Internet of Things applications" of SG16
- Agreed to ADD "Lead Study Group on intelligent transport systems (ITS)" to SG16
- Agreed to modify the SG17 Lead Study Group role to read "Lead Study Group on security"
- Agreed to collocation text for ITU-T SGs 9, 11, 13, and 16, as described above under "Collocation".

- Resolution 7, *Collaboration with the International Organization for Standardization and the International Electrotechnical Commission*, as contained in 106;
- Resolution 20, *Procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources*, as contained in 105
- Resolution 29, *Alternative calling procedures on international telecommunication networks*, as contained in 105;
- Resolution 40, *Regulatory aspects of the work of the ITU Telecommunication Standardization Sector*, as contained in 105;
- Resolution 43, *Regional preparations for world telecommunication standardization assemblies*, as contained in 106;
- Resolution 44, *Bridging the standardization gap between developing and developed countries*, as contained in 106;
- Resolution 47, *Country code top-level domain names*, as found in Document 88;
- Resolution 48, *Internationalized (multilingual) domain names*, as found in Document 88;
- Resolution 49, *ENUM*, as found in Document 88*;*
- Resolution 50, *Cybersecurity*, as contained in 105;
- Resolution 52, *Countering and combating spam*, as contained in 105;
- Resolution 54, *Creation of, and assistance to, regional groups*, as contained in 106;
- Resolution 58, *Encourage the creation of national computer incident response teams, particularly for developing countries*, as contained in 105;
- Resolution 59, *Enhancing participation of telecommunication operators from developing countries*, as found in Document 88;
- Resolution 60, *Responding to the challenges of the evolution of the identification/numbering system and its convergence with IP-based systems/networks, as contained in 105;*
- Resolution 61, *Countering and combating misappropriation and misuse of international telecommunication numbering resources*, as contained in 105;
- Resolution 62, *Dispute settlement*, as found in Document 88;

- Resolution 65, *Calling party number delivery, calling line identification and origin identification*, as contained in 105;
- Resolution 69, *Non-discriminatory access and use of Internet resource*, as contained in 105;
- Resolution 72, *Measurement concerns related to human exposure to electromagnetic fields*, as found in Document 88;
- Resolution 73, *Information and communication technologies, environment and climate change*, as found in Document 90;
- Resolution 75, *The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society*, as contained in 105;
- Resolution 76, *Studies related to conformance and interoperability testing, assistance to developing countries1, and a possible future ITU Mark programme*, as contained in Document 106.

3.3 Suppression of Resolutions

- Resolution 26, *Assistance to regional groups of Study Group 3;*
- Resolution 17, *Telecommunication standardization in relation to the interest of developing countries;*
- Resolution 56, *Roles of TSAG and ITU-T study group vice-chairmen from developing countries;*
- Resolution 63, *Studies regarding nomadic telecommunication services and applications.*

4 New Opinion

- new Opinion 1, *Practical application of network externality premium*, 106

5 Proposed new groups

- ITU-T Study Group 2 Regional Group for the Americas, as found in Document 104 Annex 1;
- ITU-T Study Group 5 Regional Group for the Americas, as found in Document 104 Annex 1;
- ITU-T Study Group 13 Regional Group for Africa, as found in Document 104 Annex 1.

6 Issues deferred by COM4 to the Plenary

6.1 JCA-Res178

Due to lack of time, the COM4 Plenary was not able to resolve the issues and to take a decision on the proposal in DT/61 (*Joint Coordination Activity (JCA) on technical aspects of telecommunication networks to support the Internet (JCA-Res178)*, under TSAG), but decided to defer matters of 114 (Rev.1) to the WTSA Plenary for action.

6.2 Resolution 64, *IP address allocation and facilitating the transition to and deployment of IPv6*

Due to lack of time, the COM4 Plenary, was not able to resolve the open issue of square bracketed text in DT/48, on proposed draft revised Resolution 64, *IP address allocation and facilitating the transition to and deployment of IPv6*. The plenary deferred 109 to the WTSA Plenary for action.

6.3 Draft new Resolution 82, *Strategic and structural review of the ITU Telecommunication Standardization Sector*, and to the Terms of Reference of the proposed Review Committee.

Although good progress was achieved in Committee 4, two open issues remained as the debates concluded. The last draft of new Resolution 82 is included in Document 113. In order to effectively address them, in view of the short time available, the Chairman of Committee 4 after the sixth session, decided to organize an informal consultation meeting to try to solve them. Document 113 contains proposals for a way forward.

Debate on Draft new Resolution 82 is deferred to consideration of the WTSA Plenary.

Acknowledgments

Committee 4 Chairman, Mr Yoichi Maeda, wishes to express his heartfelt thanks to all the contributors of documents allocated to Committee 4 and its participants and distinguished delegates, in particular, the support and leadership of

Mr Fabio Bigi (Italy), vice-chairman of COM4 and chairman of Working Group 4A,

Ms Liu Duo (China), vice-chairman of COM4,

Mr Joshua Prepah (Ghana), chairman of working Group 4B,

Mr Vincent Affleck (United Kingdom of Great Britain and Northern Ireland), chairman of ad hoc group on Resolution 73,

Mr Dan Li (China), chairman of ad hoc group on SDN,

Mr Arthur Webster (United States of America), chairman of ad hoc group on structure refinement,

Mr Philip Rushton (United Kingdom of Great Britain and Northern Ireland), chairman of ad hoc group on the strategic review committee,

Mr Hassan Talib (Morocco), vice-chairman of COM4,

Mr Ahmed Zeddam (France Telecom Orange), chairman of ad hoc group on Resolution 72, assisted by Mr Guy-Michel Kouakou (Côte d'Ivoire).

Mr Sherif Guenina (Egypt), chairman of ad hoc groups on Resolutions 20, 29, 60, 61 and 65

Mr Arkadiy Kremer (Russian Federation), chairman of ad hoc groups on Resolution 50

Mr Vladimir Minkin, (Russian Federation), chairman of ad hoc group on Resolution 75

Mr. Al-ansari Almashagbah, (Jordan), chairman of ad hoc group on Resolution 64

Mr James Ennis, (United States of America), chairman of ad hoc group on Resolution 52

Mrs Weiling Xu, chairman of ad hoc group on Resolution 76

He also thanks the TSB staff, Mr S. De Campos Neto, Mr M. Euchner, and Ms G. Regan, for their excellent support.

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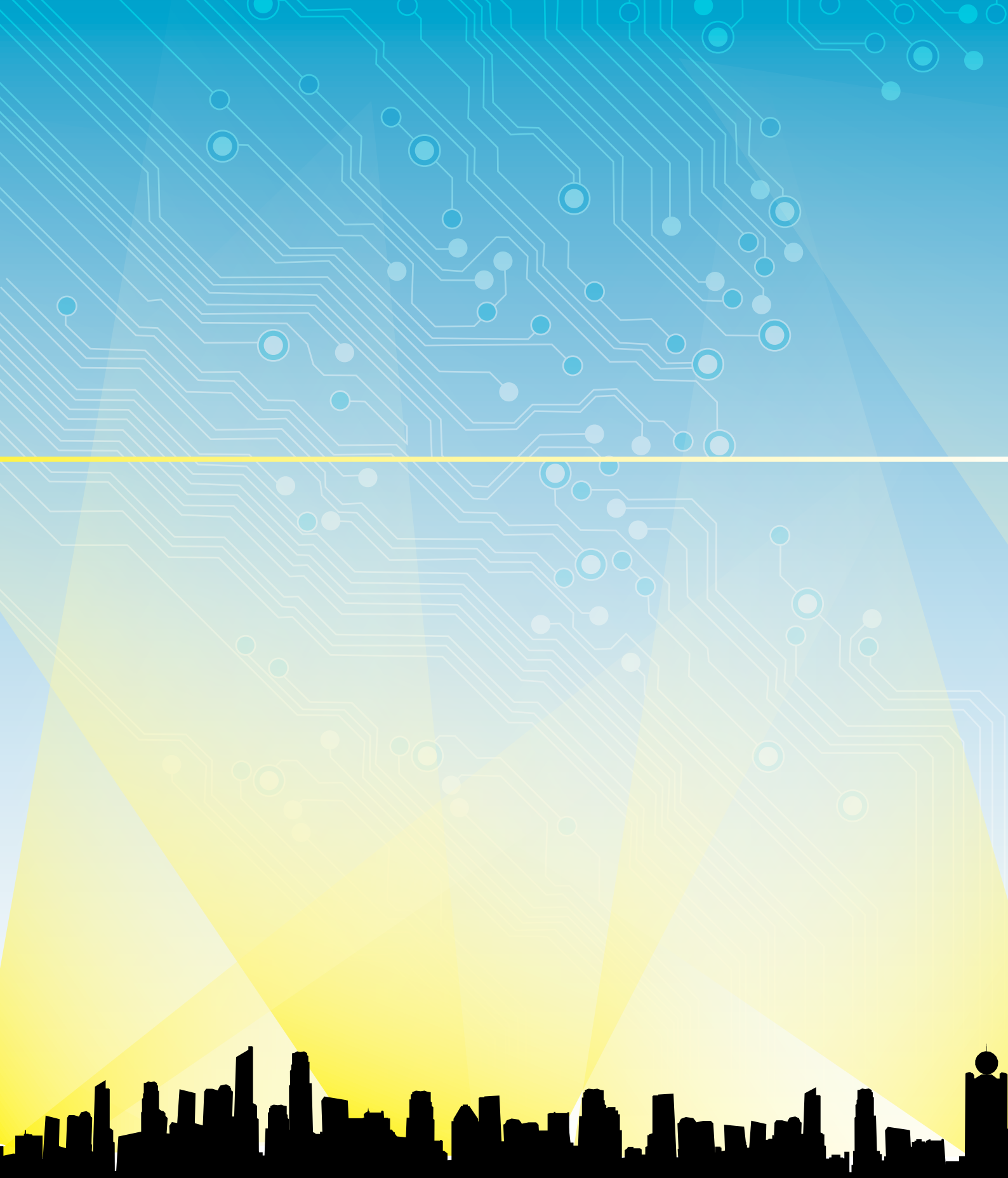

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37803

Printed in Switzerland
Geneva, 2013
ISBN 978-92-61-14201-8

03/2013