

ITU
International
Telecommunication Union



ISO
International Organization
for Standardization



IEC
International Electrotechnical
Commission



Guide for ITU-T and ISO/IEC JTC 1 cooperation

Recommendation ITU-T A.23

Annex A

(Approved June 2014)

ISO/IEC JTC 1

Standing Document 3

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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.

In 2013, the Guide was again updated to reflect revisions in the procedures of both organizations. The updated Guide was adopted by the ITU-T in [June 2014] and JTC 1 in November 2013.

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 ISO/IEC Directives, in the Consolidated JTC 1 Supplement to the ISO/IEC Directives and in JTC 1 Standing Documents) which remain controlling.

NOTE – The template for editors to use in the preparation of common text Recommendations | International Standards is available at <http://itu.int/en/ITU-T/studygroups/Pages/templates.aspx>, and the presentation rules at <http://itu.int/en/ITU-T/info/Pages/resources.aspx> and http://iso.org/iso/jtc1_home (Resources, JTC1 Standing documents section).

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://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://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 TSAG to act between WTSAs*.
- 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://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 (latest version), *Work methods for study groups of the ITU Telecommunication Standardization Sector*.
- Recommendation ITU-T A.2 (latest version), *Presentation of contributions to the ITU Telecommunication Standardization Sector*.
- Recommendation ITU-T A.4 (latest version), *Communication process between the ITU Telecommunication Standardization Sector and forums and consortia*.
- Recommendation ITU-T A.5 (latest version), *Generic procedures for including references to documents of other organizations in ITU-T Recommendations*.
- Recommendation ITU-T A.6 (latest version), *Cooperation and exchange of information between the ITU Telecommunication Standardization Sector and national and regional standards development organizations*.
- Recommendation ITU-T A.8 (latest version), *Alternative approval process for new and revised ITU-T Recommendations*.
- Recommendation ITU-T A.11 (latest version), *Publication of ITU-T Recommendations and World Telecommunication Standardization Assembly proceedings*.
- Recommendation ITU-T A.12 (latest version), *Identification and layout of ITU-T Recommendations*.
- Recommendation ITU-T A.13 (latest version), *Supplements to ITU-T Recommendations*.
- Recommendation ITU-T A.23 (latest version), *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 website at <http://iso.org>. Similarly, most information about the IEC can be found on its website at <http://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 1:2013, Procedures for the technical work
- ISO/IEC Directives – Part 2:2011, Rules for the structure and drafting of International Standards
- ISO/IEC Directives – Consolidated JTC 1 Supplement:2014
- JTC 1 Standing Documents 2013

1.4.2.2 JTC 1

Most information about ISO/IEC JTC 1 can be found on its site at <http://jtc1.org>. The key document setting forth the specific procedures for JTC 1 is the ISO/IEC Directives – Consolidated JTC 1 Supplement "Procedures Specific to JTC 1".

1.4.2.3 Subcommittees of JTC 1

Subcommittees of JTC 1 maintain their respective websites, 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 from an ITU-T SG that collaboratively develops common (or twin) text for one or more Recommendations | International Standards (see clause 8).

NOTE – In JTC 1, a Collaborative Team is similar to a Working Group to the maximum extent possible.

1.5.3.3 Identical Recommendations | International Standards (or "common text"): Recommendations and International Standards which were developed jointly by ITU-T and ISO/IEC and have identical text. The expression "Identical Recommendations | International Standards" is the title of clause 2.1 in common texts.

1.5.3.4 Paired Recommendations | International Standards (or "twin text"): 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.

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).

NOTE – In JTC 1, a Working Level Group is similar to a Working Group to the maximum extent possible.

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
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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 September 2013 (an up-to-date list may be found on the ITU website at <http://itu.int>). Table 2 lists the nineteen Subcommittees of JTC 1 as of September 2013 (an up-to-date list may be found on the JTC 1 website at <http://jtc1.org>).

Table 1 – List of ITU-T Study Groups

Designation	Title
SG2	Operational aspects of service provision and telecommunication management
SG3	Tariff and accounting principles including related telecommunication economic and policy issues
SG5	Environment and climate change
SG9	Television and sound transmission and integrated broadband cable networks
SG11	Signalling requirements, protocols and test specifications
SG12	Performance, quality of service and quality of experience
SG13	Future networks including cloud computing, mobile and next-generation networks
SG15	Networks, technologies and infrastructures for transport, access and home
SG16	Multimedia coding, systems and applications
SG17	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

Table 2 – List of ISO/IEC JTC 1 Subcommittees

Designation	Title
SC 38	Distributed application platforms and services (DAPS)
SC 39	Sustainability for and by Information Technology
NOTE – Also directly reporting to JTC 1 are: – Special Working Group on Accessibility; – Special Working Group on Directives; – Special Working Group on Planning; – Special Working Group on Smart Grid; – Special Working Group on Internet of Things (IoT); – Special Working Group on Management; – WG 7 on Sensor Networks; – WG 8 on Governance of IT.	

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 September 2013 and Figure 2 illustrates the JTC 1 structure as of September 2013.

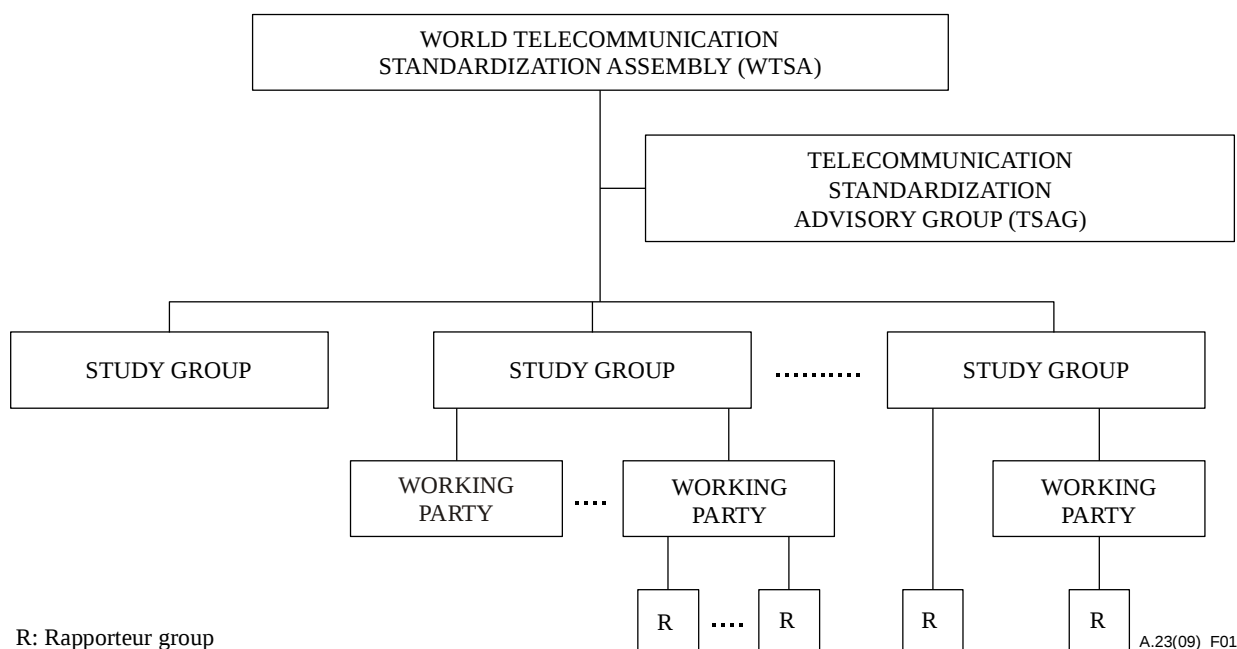


Figure 1 – Organizational structure of ITU-T

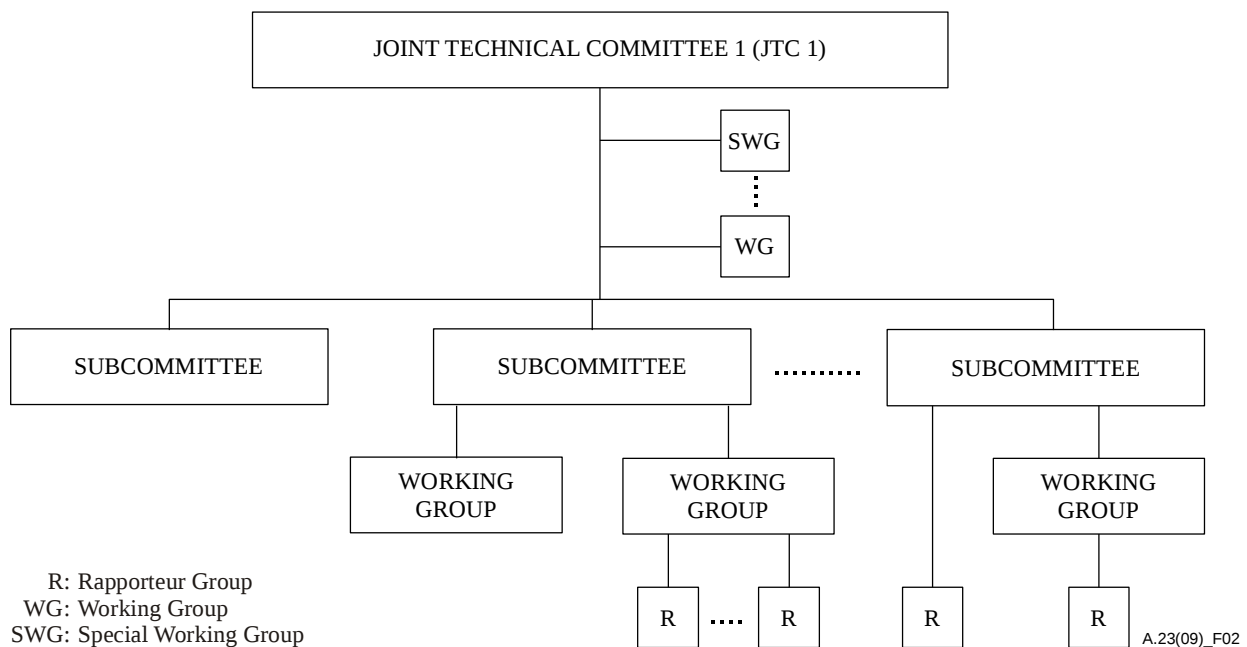


Figure 2 – Organizational structure of JTC 1

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:

- Approval of any Recommendations submitted by the Study Groups;
- Organization of the Study Groups for the next Study Period;
- Allocation of Questions (work program) to Study Groups;
- Appointment of the chairman and vice-chairmen of each Study Group; and
- 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:

- Establishment of Working Parties and the appointment of their chairmen;
- Allocation of Questions to each Working Party; and
- 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.

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.

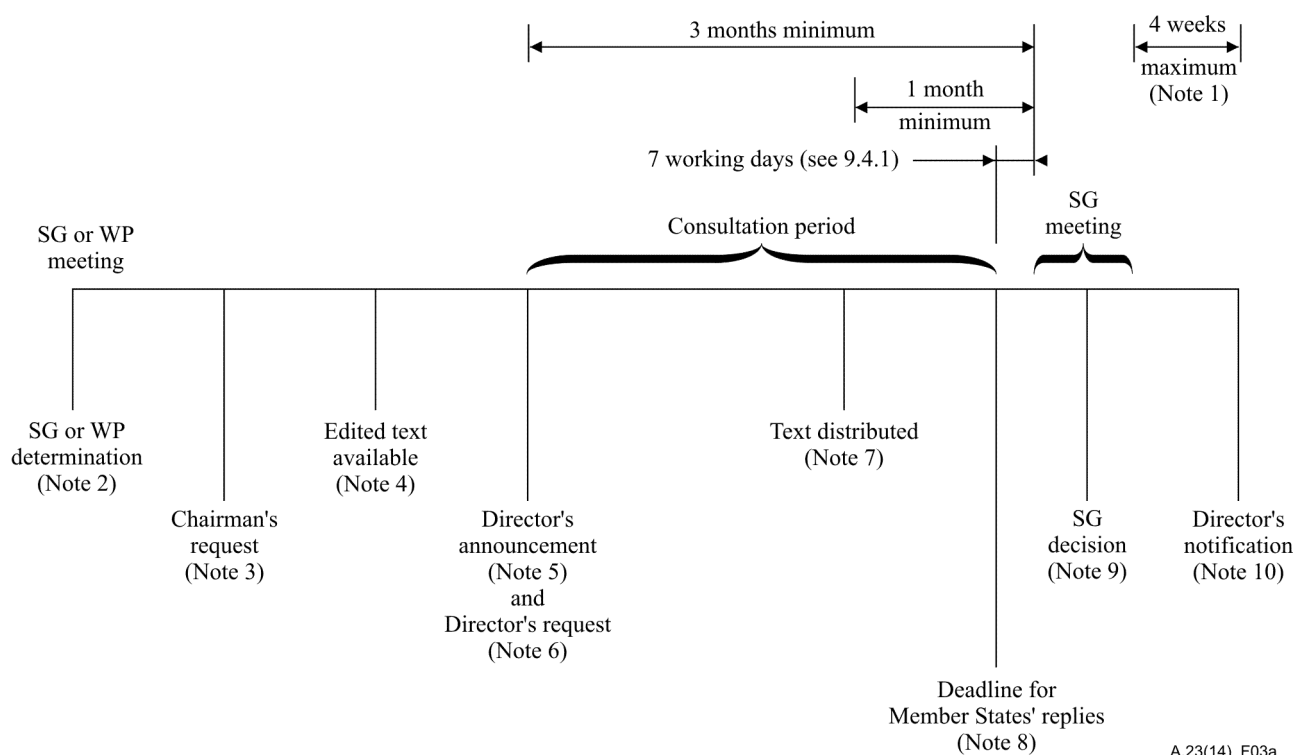
3.1.2 Alternative Approval Process (AAP)

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.

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.



NOTE 1 – Exceptionally, an additional period of up to four weeks would be added if a delegation requested more time under WTSA-12 Resolution 1, clause 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 (WTSA-12 Resolution 1, clause 9.3.1).

NOTE 3 – *Chairman's request*: The SG chairman requests that the Director announce the intention to seek approval (WTSA-12 Resolution 1, clause 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 (WTSA-12 Resolution 1, clause 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 (WTSA-12 Resolution 1, clauses 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 (WTSA-12 Resolution 1, clauses 9.4.1 and 9.4.2). This request shall contain the summary and reference to the complete final text.

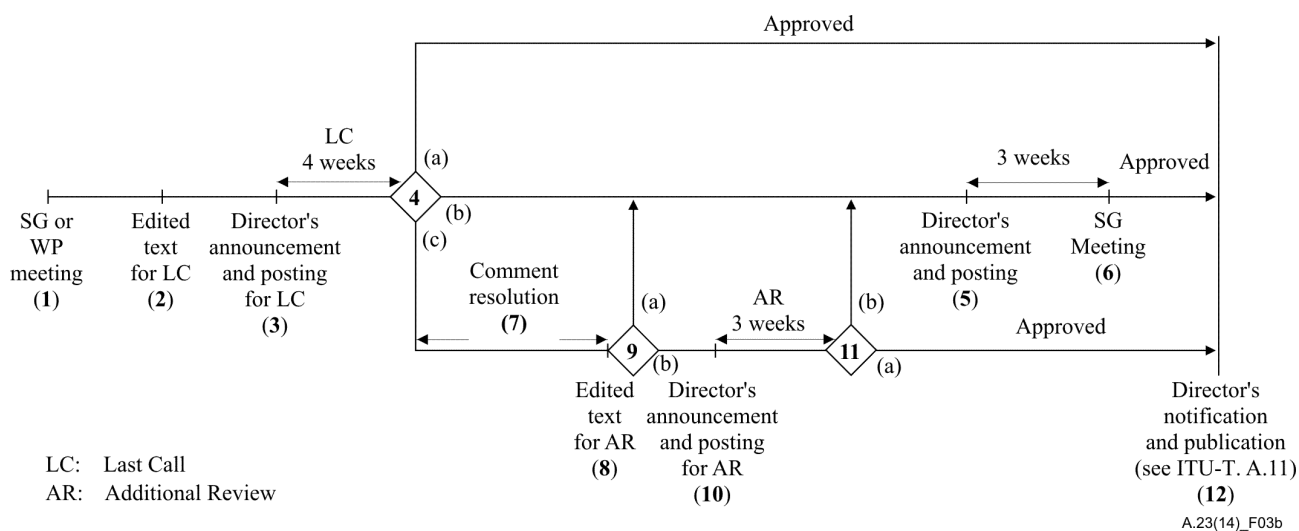
NOTE 7 – *Text distributed*: Text of the draft Recommendation must have been distributed in the official languages at least one month before the announced meeting (WTSA-12 Resolution 1, clauses 9.3.5).

NOTE 8 – *Deadline for Member States' replies*: If 70% of replies received during the consultation period indicate approval, the proposal shall be accepted (WTSA-12 Resolution 1, clauses 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 (WTSA-12 Resolution 1, clauses 9.5.3 and 9.5.2). A delegation can register a degree of reservation (WTSA-12 Resolution 1, clause 9.5.4), can request more time to consider its position (9.5.5) or can abstain from the decision (WTSA-12 Resolution 1, clause 9.5.6).

NOTE 10 – *Director's notification*: The Director notifies whether the draft Recommendation is approved or not (WTSA-12 Resolution 1, clause 9.6.1).

Figure 3a (Based on Fig. 9.1 of WTSA Res. 1) – ITU-T Traditional Approval Process (TAP)



- 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, clause 3.1).
- 4) *Last call judgment* – The study group chairman, in consultation with TSB, makes the judgment whether:
 - a) no comments other than those indicating typographical errors have been received. In this case, the Recommendation is considered as approved (Rec. ITU-T A.8, clause 4.4.1);
 - b) a planned study group meeting is sufficiently close to consider the comments received (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, clause 5.2); or
 - b) approves the draft Recommendation (Rec. ITU-T A.8, 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) (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, clause 4.4.2).
- 8) *Edited text available* – The revised edited text, including summary, is provided to TSB (Rec. ITU-T A.8, clause 4.4.2).
- 9) *Next step judgment* – The study group chairman, in consultation with TSB, makes the judgment whether:
 - a) a planned study group meeting is sufficiently close to consider the draft Recommendation for approval (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, clause 4.5).
- 11) *Additional review judgment* – The study group chairman, in consultation with TSB, makes the judgment whether:
 - a) no comments other than those indicating typographical errors have been received. In this case, the Recommendation is considered approved (Rec. ITU-T A.8, 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 (Rec. ITU-T A.8, clause 4.5.2).
- 12) *Director's notification* – The Director notifies the members that the draft Recommendation has been approved (Rec. ITU-T A.8, clause 6.1 or 6.2).

Figure 3b (Based on Fig. 1 of ITU-T A.8) – 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 00 through 60 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 IS	Technical Report	Technical Specification	Technical Corrigendum
00 (optional) Preliminary stage	Preparation of NP	Preparation of NP		Preparation of NP		
01 Proposal stage	Acceptance of NP	Acceptance of NP		Acceptance of NP	Acceptance of NP	
02 Preparatory stage	Preparation of WD	Preparation of WD		Preparation of WD	Preparation of WD	Preparation of Defect report
03 Committee stage	Development and acceptance of CD	Development and acceptance of PDAM		Development and acceptance of PDTR	Development and acceptance of PDTS	Development and acceptance of DCOR
04 Enquiry stage	Development and acceptance of DIS	Development and acceptance of DAM	Development and acceptance of DIS	Approval of DTR	Approval of DTS	
05 Approval stage	Approval of FDIS	Approval of FDAM	Approval of FDIS			
06 Publication stage	Publication of IS	Publication of Amendment	Publication of IS	Publication of Technical Report	Publication of Technical Specification	Publication of Technical Corrigendum

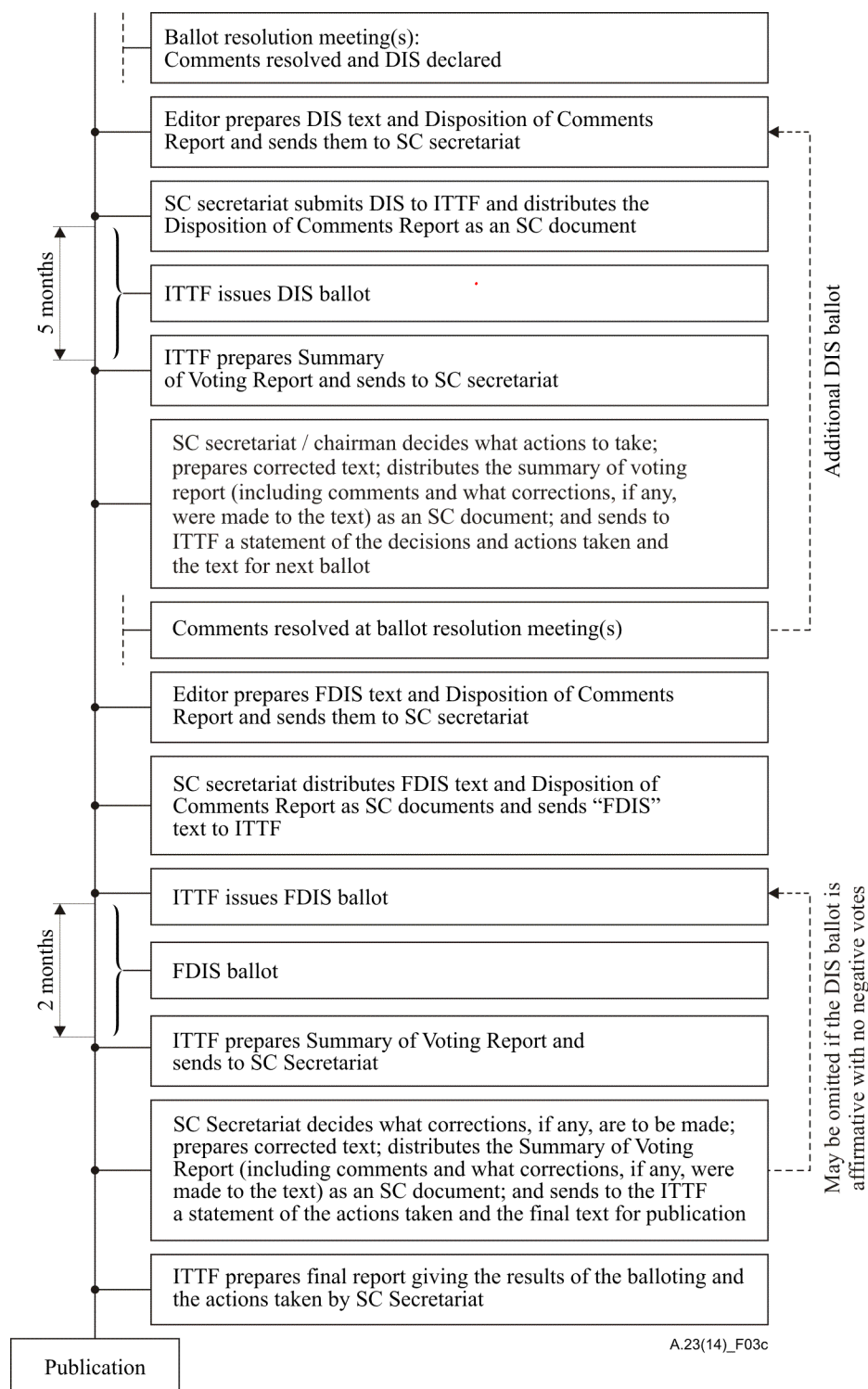
A proposal for a new work item can be initiated by a JTC 1 National Body, an SC, or a Category A Liaison. A standard format exists for a new work item proposal (NP). An NP is circulated for a three-month letter ballot at the JTC 1 level or, if initiated by a Subcommittee, a letter ballot at the Subcommittee 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 SC¹⁾, it is registered as a Committee Draft (CD), a Proposed Draft Amendment (PDAM), a Proposed Draft Technical Report (PDTR) or a Proposed Draft Technical Specification (PDTS). 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

¹⁾ 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.

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.



NOTE – The stage illustrated as DIS equally applies to DAM, DTR or DTS; similarly, the stage illustrated as FDIS equally applies to FDAM.

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 DAM, DTR or DTS ballot), the text is registered as a Draft International Standard (DIS), Draft Amendment (DAM), Draft Technical Report (DTR) or Draft Technical Specification (DTS). Following a two-month translation period, DISs and DAMs are circulated for a three-month letter ballot by ISO and IEC

members. DTRs and DTSs are circulated for a three-month (can be extended to six 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 (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 or Technical Publications, 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."²⁾ JTC 1, as a joint technical committee of ISO and IEC, has a scope of "standardization in the field of information technology."³⁾

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.

²⁾ Constitution of the International Telecommunication Union, 2006.

³⁾ JTC 1 Business Plan.

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).

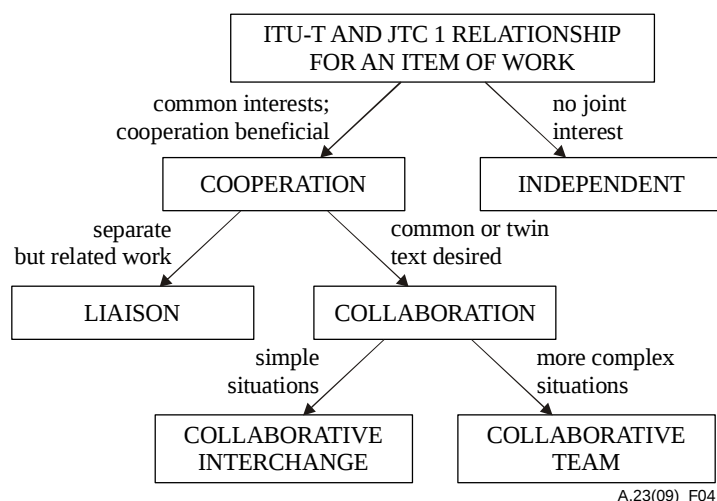


Figure 4 – Possible working relationships between ITU-T and JTC 1

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, PDTR or PDTS) ballot, DIS (or DAM, DTR or DTS) ballot, FDIS (or FDAM) 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.

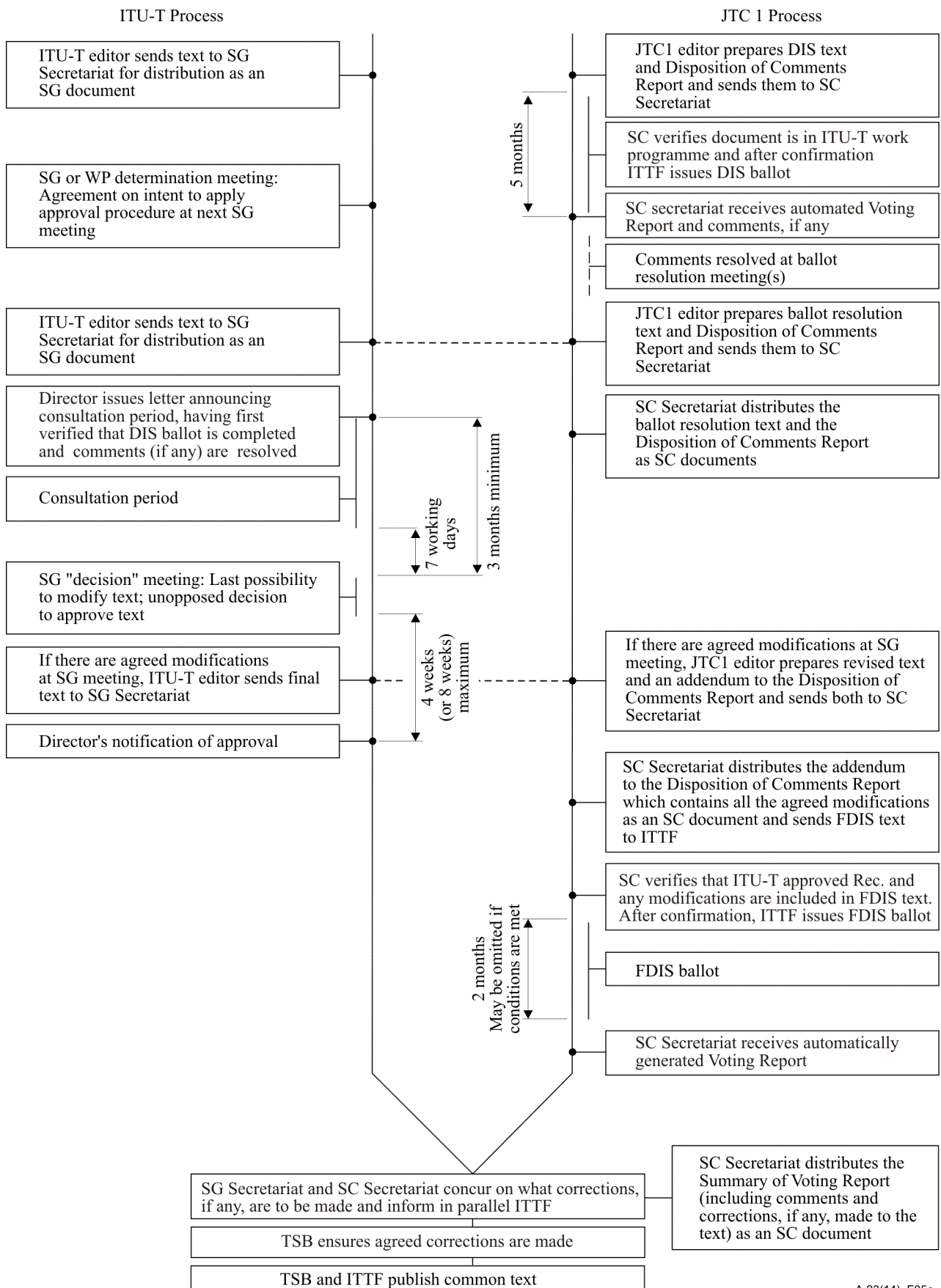
The efficiency of the collaborative process depends in large measure on the synchronization of the approval processes of both organizations. Early planning and establishment of milestones, taking into account key dates in each organization, is essential to achieving synchronization and avoiding added delay. For example, the dates for the DIS (or DAM, DTR or DTS) and FDIS (or FDAM) 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, DTR or DTS; similarly, the stage illustrated as FDIS equally applies to FDAM.

The Fast Track process (see clause F.2 of the Consolidated JTC 1 Supplement, complemented by JTC 1 Standing Document 9) 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 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.



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Figure 5a – Final stages of collaborative approval process when TAP is used

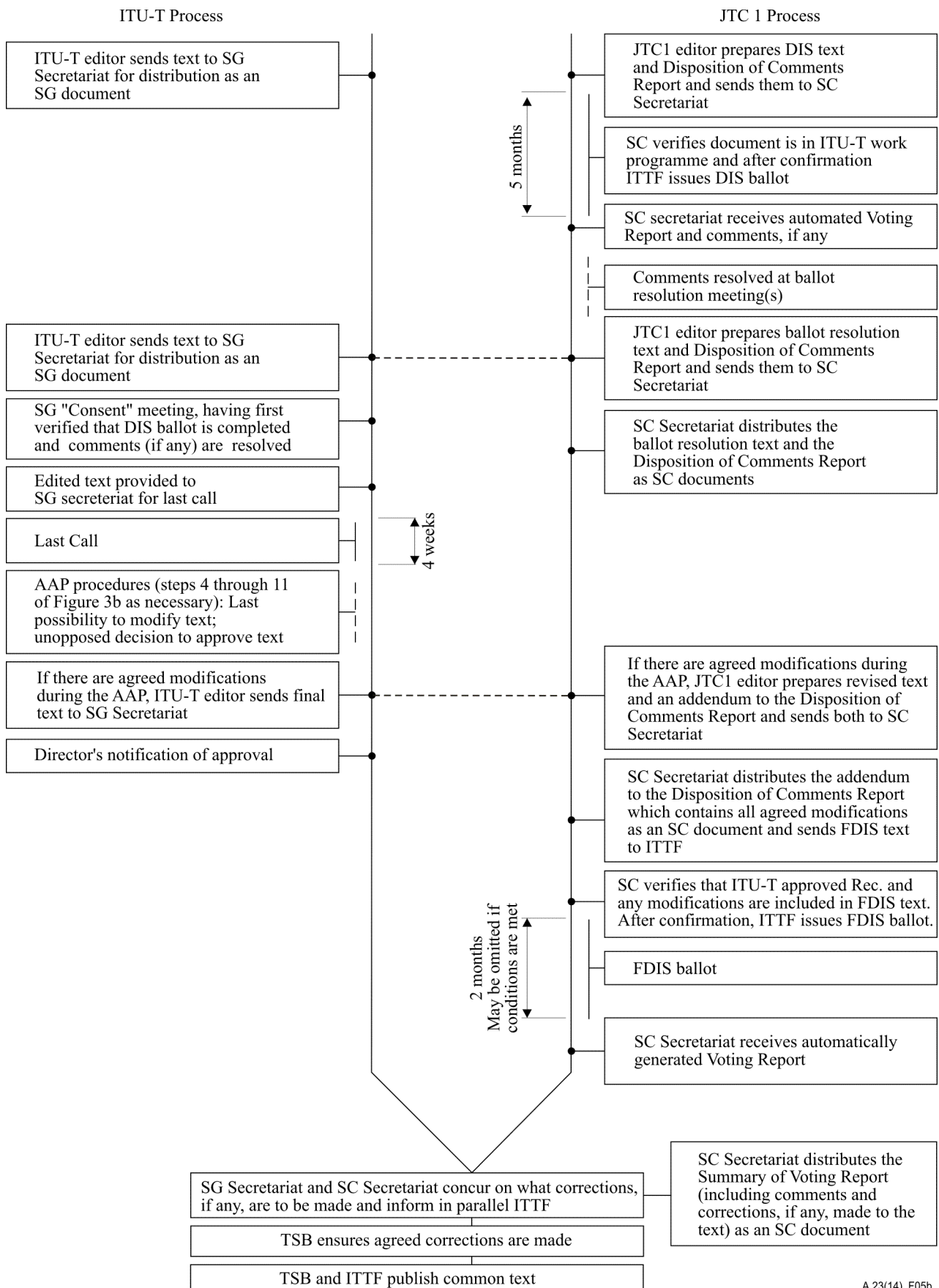


Figure 5b – Final stages of collaborative approval process when AAP is used

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. If the JTC 1 project has been submitted to ITTF for Draft International Standard processing, or if the ITU-T project has been consented for AAP Last Call (or determined for TAP consultation), the window to establish a Collaborative Team is considered as closed.

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 workflow 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.

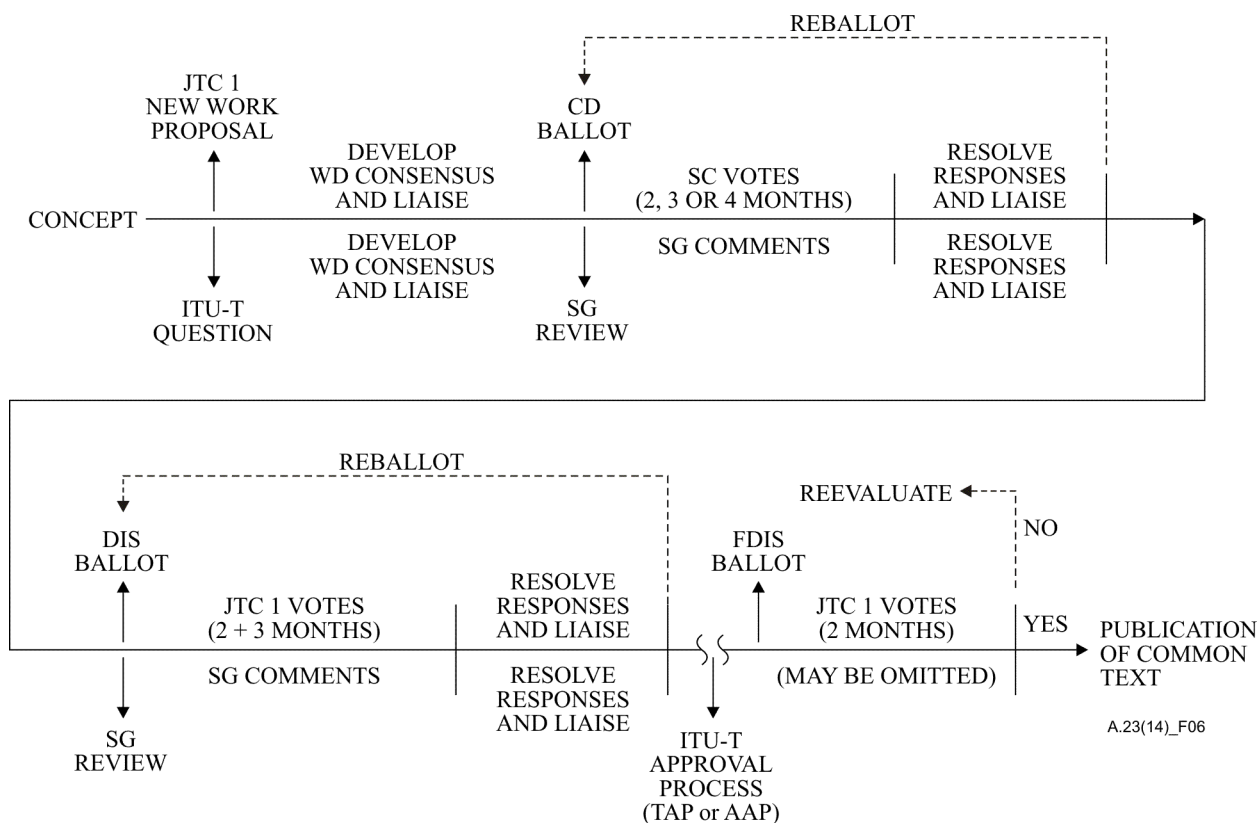


Figure 6 – Workflow diagram when Collaborative Interchange is used

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 the note in clause 1.3). 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), Proposed Draft Technical Report (PDTR) or proposed Draft Technical Specification (PDTs), and distributes it for letter ballot to the National Bodies of the SC. The ballot period is two, three or four 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, PDTR or PDTs 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, PDTR or PDTs 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 three-month ballot (following a two-month translation period) by ITTF to the members of ISO and IEC. A DTR or DTS is circulated for a three to six 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, DTR or DTS 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, DTR or DTS 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, DTR or DTS 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, DTR or DTS ballot and comment period for ITU-T members will be required to affirm that all are in accord with the results.⁴⁾ This ballot and comment period is two to three months for DISs and DAMs, and is three months for DTRs and DTSs.

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 agreed⁵⁾. 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 or DTSs). 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 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.

⁴⁾ 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.

⁵⁾ 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.

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. If the JTC 1 project has been submitted to ITTF for Draft International Standard processing, or if the ITU-T project has been consented for AAP Last Call (or determined for TAP consultation), the window to establish a Collaborative Team is considered as closed.

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 workflow 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.

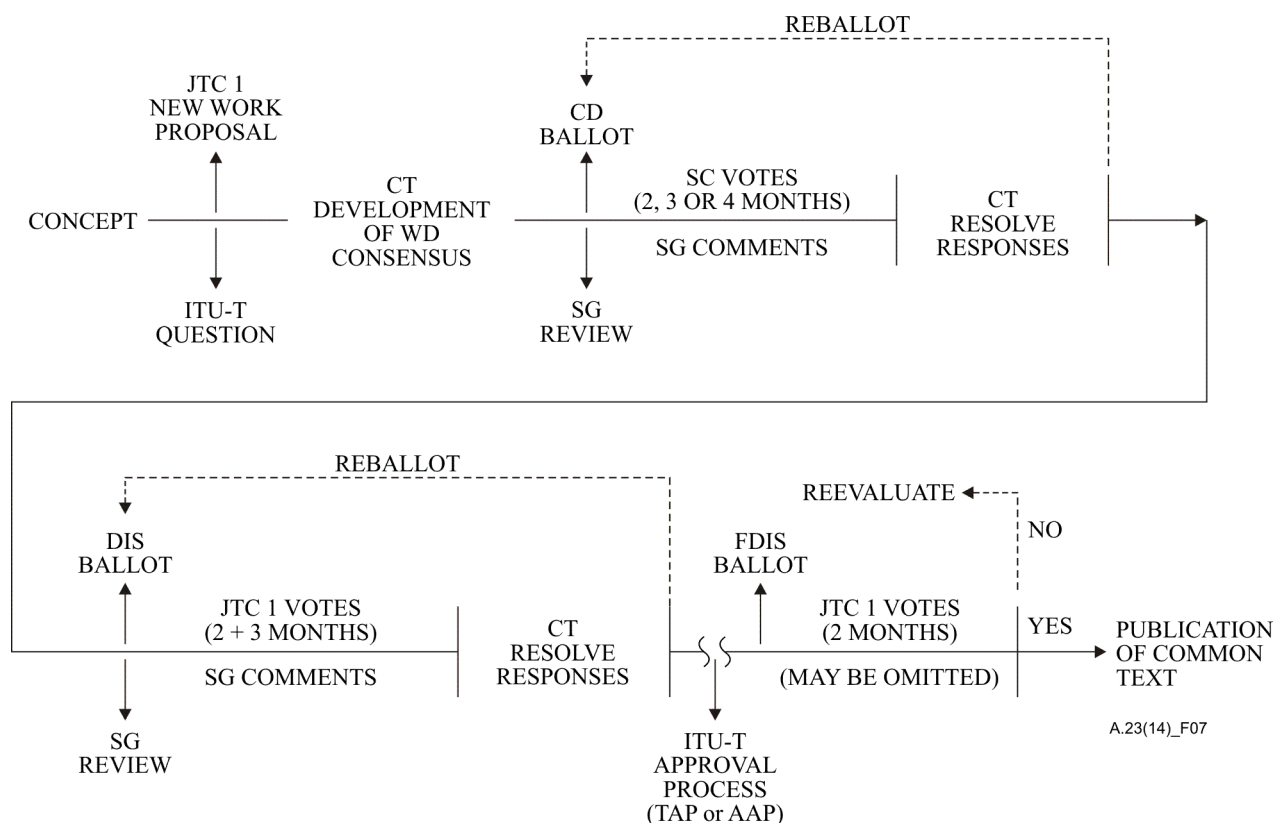


Figure 7 – Workflow diagram when Collaborative Team is used

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 the note in clause 1.3). 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.

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 shall respect the deadlines of both JTC 1 and ITU-T (e.g., in JTC 1, working group meeting agendas shall be distributed preferably four months but no less than three months before the meeting starting date; in ITU-T, a convening letter for rapporteur meetings is posted, normally at least two months prior to the meeting, on the study group webpage) and shall properly identify the meeting as one of both JTC 1 and ITU-T. 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), Proposed Draft Technical Report (PDTR) or Proposed Draft Technical Specification (PDTs), and distributes it for a letter ballot to the National Bodies of the SC. The ballot period is two, three or four 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, PDTR or PDTs 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, PDTR or PDTs 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 three-month ballot (following a two-month translation period) by ITTF to the National Bodies of ISO and IEC. A DTR or DTS is circulated for a three to six 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, DTR or DTS level in ISO/IEC. The second controlling factor is that the DIS, DAM, DTR or DTS 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, DTR or DTS 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, DTR or DTS 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, DTR or DTS ballot and comment period for ITU-T members

will be required to affirm that all are in accord with the results⁶⁾. This ballot and comment period is two to three months (three months for DTR or DTS).

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 agreed⁷⁾. 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 or DTSs). 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.

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

⁶⁾ 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.

⁷⁾ 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. Approval on the ITU-T side would normally be delayed until completion of the JTC 1 ballot.

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 (see the note in clause 1.3) 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 mentioned as a note in clause 1.3);
- 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 mentioned as a note in clause 1.3); 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.

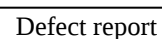
A third important area involves the large number of Recommendations and International Standards that exist only in one organization, but make use of and reference Recommendations and International Standards that were developed collaboratively. In this situation, the spirit of cooperation can be communicated 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://itu.int/en/ITU-T/ipr> and in the ISO/IEC Directives, Part 1:2013, and Part 2:2011, 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.

Defect report form



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:

Recommendation ITU-T A.23 Amd.1

Collaboration with ISO and IEC on information technology

Appendix II Best practices

(This appendix does not form an integral part of this Recommendation.)

This appendix contains best practices to be used when applying Annex A to the cooperation between ITU-T and ISO/IEC JTC 1.

II.1 Choosing meeting dates

When a text is developed jointly (as a common text or as a twin text, using a Collaborative Team or by Collaborative Interchange) between an ITU-T study group and a JTC 1 subcommittee, it is recommended that the dates of the ITU-T study group and JTC 1 subcommittee meetings (in particular plenary meetings, but also interim meetings) be discussed between both parties and agreed in advance as conveniently as possible (see also clauses 5.1, 7.2 and 8.4).

This is particularly relevant when the draft document is reaching a stable state and is planned for AAP consent or TAP determination in ITU-T, or for DIS ballot in JTC 1.

It is also useful for meetings of Working Level Groups (see clause 1.5.3.5) to ensure that the other party has sufficient time to submit contributions or comments before the deadline.

II.2 Editing a common text

When an ITU-T study group and a JTC 1 subcommittee have agreed together to develop a common text, it is best practice that a unique file (master copy) is used to avoid ending up with two diverging versions of the same draft Recommendation | International Standard (see also clauses 7.5 and 8.2).

II.3 Resolving issues of coordination

Should there be any issue of collaboration between an ITU-T study group and a JTC 1 subcommittee for the establishment of a Collaborative Team or a Collaborative Interchange, or during the development of a common or twin text, it is best practice to inform the ITU-T liaison officer to JTC 1 and the JTC 1 liaison officer to ITU-T as soon as possible, so they could play a facilitator role attempting to resolve any issue.

II.4 Using handy names

It is best practice that a handy name or acronym is defined at the beginning of any collaborative project, to be the usual identification of the work and of the corresponding Recommendation and International Standard when referring to them.

It is also best practice to include the agreed handy name or acronym in the terms of reference of the Collaborative Team or Collaborative Interchange (see clauses 7.1 or 8.1) leading to either common text or twin text, and in the title of the resulting publication.

NOTE 1 – Examples of handy names are:

- HEVC (High Efficiency Video Coding) for Recommendation ITU-T H.265 | ISO/IEC 23008-2;
- RMCP (Relayed MultiCast Protocol) for Recommendation ITU-T X.603 | ISO/IEC 16512-1;
- VVC (Versatile Video Coding) for Recommendation ITU-T H.266 | ISO/IEC 23090-3.

NOTE 2 – Confusion should be avoided if the suggested handy name is already used by pre-existing implementations of the standard with different functionalities or if there is intellectual property rights associated with its use.

II.5 Synchronizing the appointment of a registration authority

When a joint project includes registration provisions (i.e., the assignment of an unambiguous name to an object in a way which makes the assignment available to interested parties), it is best practice to develop two different common (or twin) texts:

- The first text is the technical standard in which the objects to be registered are defined;
- The second text is the registration procedure standard which defines the procedure according to which the registration authority (i.e., the entity entitled and trusted to perform the registration service) works, and specifies its duties and obligations. The procedure standard also specifies an appeals procedure and a revocation procedure.

NOTE – Annex H to the ISO/IEC Directives provides guidance on how to write the procedure standard in JTC 1.

It is also best practice to follow the following process to ensure that the (same) registration authority is jointly appointed by the ITU-T study group and the JTC 1 sub-committee:

1. The selection process for the registration authority begins with a call for offers made by the ITU-T study group and by the JTC 1 sub-committee. The ITU-T study group and JTC 1 sub-committee ensures that each candidate is an acceptable legal entity according to the rules of each organization.
2. Once nominations have been received for the registration authority (and shared with the other organization), they are initially reviewed by the Collaborative Team (if one exists for the joint project), otherwise by the appropriate ITU-T study group or the appropriate JTC 1 sub-committee (whichever meets first), and a report is produced.
3. The report is discussed within the appropriate ITU-T study group or the appropriate JTC 1 sub-committee (whichever meets first) and presented for approval. Then it is sent as a liaison statement to the next plenary session of the other organization for ratification. It is expected that both plenary sessions reach the same conclusion and agree to nominate the same candidate; otherwise the discrepancy is referred to each organization for further consideration.
4. Once all organizations have reached the same conclusion, the final approval and appointment of the registration authority follows the procedures of each organization.

NOTE – Any discrepancies raised during the approval processes of the organizations are referred to their Chief Executive Officers (for ISO and IEC) and to the TSB Director (for ITU-T) for resolution.
