ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Guide for ITU-T
study groups

**Considering end-user needs
in developing ITU-T Recommendations**

ITU
International
Telecommunication
Union

Guide for ITU-T study groups

Considering end-user needs in developing ITU-T Recommendations

At its meeting in March 2005, TSAG adopted on an experimental basis a Guide for ITU-T study groups: Considering end-user needs in developing ITU-T Recommendations. The Guide is intended to assist ITU-T study groups by providing information and ideas on how end users' needs can be taken into account in the development of ITU-T Recommendations that have direct implications for end users.

Although the Guide is intended for use by SGs, it is recognized that end-user requirements (and, therefore, use of the Guide) will not be relevant to all ITU-T Recommendations or SG Questions. The application of this Guide is therefore not mandatory, and each study group should apply the Guide when appropriate.

TSAG also recognized that the Guide needs to be tested before it becomes a fully efficient tool for study groups. Accordingly, the Guide is submitted on an experimental basis and each study group is requested to provide feedback for the TSAG July 2006 meeting.

Guide for ITU-T study groups

Considering end-user needs in developing ITU-T Recommendations

CONTENTS

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Considering end-user needs in developing ITU-T Recommendations

1   Introduction

An important measure of success of standardization activities is whether the standards (Recommendations) produced meet market needs and are attuned to the needs of end users, whose concerns include product quality, ease of use and safety. If standards are designed to be in step with the end-user requirements, the products they describe will be of the right quality and more readily embraced by the market. Without the input of end users, standards may require costly revisions, and products might fall out of favour in a competitive marketplace where consumers are increasingly knowledgeable and able to access critical product information.

2   Scope

This Guide is intended to assist ITU-T study groups (SGs) by providing information and ideas on how end users' needs can be taken into account in the development of ITU-T Recommendations that have direct implications for end users. Although the Guide is intended for use by SGs, it broadly covers end-user requirements within the context of the ITU Telecommunication Standardization Sector as a whole.

Recognizing that the mandate for ITU-T SGs is to develop Recommendations for international telecommunications, as a general rule, taking the needs of end users into account should not adversely affect the work of the SGs. To be effective, however, consideration of end-user needs should feature in each stage of the standards development process, where it is relevant.

It is recognized that end-user requirements (and, therefore, use of this Guide) will not be relevant to all ITU-T Recommendations or SG Questions. Whether the Guide is directly applicable needs to be tested on a case-by-case basis. However, it is important to recognize that if the opportunity arises, the manner in which a Recommendation meets users' needs should be reflected in the text of the Recommendation (Summary, Introduction, Scope). An example of such case is provided in Annex A.

It is also important to draw reference to the work initiated and being undertaken by Study Group 16 (ref. COM16–D41) on *Telecommunications accessibility guidelines for older persons and persons with disabilities*[1]. Although this Guide and the Study Group 16 guidelines on accessibility cater to different audiences (the former aimed at ITU-T study

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[1] Addendum 1: "Telecommunications accessibility guidelines for older persons and persons with disabilities"
http://www.itu.int/md/dologin_md.asp?lang=e&id=T05-SG16-041116-D-0041!A1!MSW-E&type=mitems

Addendum 2: Annex to Addendum 1
http://www.itu.int/md/dologin_md.asp?lang=e&id=T05-SG16-041116-D-0041!MSW-E&type=mitems

groups; the latter at standards-makers, manufacturers, network operators and regulators), it is recognized that the two address the same broad theme. Every effort should be made to ensure the documents are complementary and consistent.

3   Definitions

3.1   End users

End users of telecommunication products and services are people, groups of people and organizations that use or consume telecommunication products and services. As such, end users may also be referred to as "consumers". They are a diverse group, including people, whatever the age or gender, level of income, geographic environment or work activities. End users, whether they be organizations or people, have varied requirements.

End users may range in expertise and awareness, including those with detailed technical knowledge as well as people whose focus is on human factors such as usability.

4   Why should end users be involved in the making of Recommendations?

There is growing recognition amongst those interested in standardization that:

- by involving a wide cross-section of stakeholders, including end users, Recommendations should lead to more robust outcomes and higher quality products and services;

- it is important to broaden the scope and scale of discussion of end-user-related issues in ITU-T and other standards development organizations, and to subject standardization to more active public scrutiny;

- there are considerable challenges and barriers facing end users in the structure, culture and practices of the international technical standards-setting community, and the resources necessary for participation; and

- new or revised Recommendations may lead to unanticipated problems or complexities for the general public, and ITU-T should therefore work with end-user-focused organizations to develop a shared linguistic and technical understanding of Recommendations.

5   Options for ITU-T SGs to involve end users in standards-making

The earlier consultation with key end-user representatives begins, the better the outcomes for government, industry, the community and the standards-makers. A checklist outlining questions for SGs to consider in the development of Recommendations is provided later in this Guide.

Options for involving end users include (but are not limited to) the following:

At the national level

- Provision can be made for end-user participation in the initiation and planning of standards work programmes, both national and international, as well as in policy matters relevant to an end-user. In addition, at the national level, end users could be invited to participate in technical committees executing standards projects affecting their interests.

- National ITU-T preparatory bodies and other international standards and consumer bodies are encouraged to seek end-user opinions through existing end-user organizations – and then co-ordinate this information for feedback into ITU-T processes. This would facilitate a common national approach to matters of end-user interest in international standardization.

- If end users are not able to finance their participation in the standardization process themselves, national ITU-T preparatory bodies are encouraged to facilitate their participation in priority areas of end-user interest.

At the ITU-T study group level

- A mechanism to facilitate exchange of relevant information should be established with National Standards Bodies (NSBs) and other international standards and consumer bodies (e.g. ISO[2], CI[3], ANEC[4]). This might involve the inclusion of end users and end-user groups directly by seeking their comments and other input at defined stages throughout the standardization process (potentially using NSBs).

- Including end users and end-user groups in correspondence groups so they can input directly on draft Recommendations and be heard in discussions (perhaps initially sending invitations to these groups at an early stage of the process).

- ITU-T SGs could include a statement in their new work items (e.g. within the drafting of Questions) identifying wherever a specific international standardization matter is considered to be of particular interest to end users. Furthermore, invitations could be sent to end-user representatives to attend/participate in ITU-T SG meetings electronically (providing a calendar of meetings).

- Regular and relevant liaison between ITU-T SGs dealing with human factors (currently SG 2 and SG 12) for the exchange of information and/or seeking views and comments.

- Use of a "focus groups" mechanism available through ITU-T Recommendation A.7. Procedures and working methods are also established to facilitate the financing of focus groups.

Through promotional activities, TSB[5] or ITU-T SGs could communicate the results of their standards work of interest to end-user groups. It may also be useful to co-ordinate seminars, courses or workshops on issues to raise the profile of standards-setting activities (see also new WTSA Resolution 53, WTSA-2004, Florianópolis, Brazil).

6 How international end-user or consumer associations can help

ITU-T study groups should consider seeking end-user opinions through the following:

- ISO/COPOLCO is the Consumer Policy Committee of the International Organization for Standardization. Through this committee, ISO undertakes to:
    - make COPOLCO's services available to NSBs worldwide;
    - support its members in developing end-user participation in standards-making;
    - provide case studies where end users have contributed positively to standards-making;
    - study how end users can benefit from standardization;

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[2] International Organization for Standardization.

[3] Consumers International.

[4] European Association for the Coordination of Consumer Representation in Standardization.

[5] Telecommunication Standardization Bureau.

– promote the positive role of standards in end-user protection;

– encourage the exchange of experience on standards work of end-user interest; and

– channel end users' views both into current standards projects and proposals for new work in areas of interest to them.

The ISO Central Secretariat is contactable at central@iso.org or www.iso.org.

- Consumers International is the worldwide organization for consumer groups (www.consumersinternational.org). Consumers International aims to develop strong and effective consumer organizations that can impact on policy-making at national and global levels. This is achieved by building the knowledge and skills of its member organizations through training programmes, seed grants, technical assistance, information networks, exchange programmes and joint projects. Consumers International represents consumers on many committees of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), which influence the safety and performance of consumer goods.

- In Europe, the European Association for the Coordination of Consumer Representation in Standardization (ANEC) is a regional association representing end users in standardization (www.anec.org).

7   What ITU-T SGs can expect from end-user representatives

An end-user representative can play an important role in developing Recommendations where end-user issues such as health, safety, performance, quality, reliability, environmental protection, ease-of-use, compatibility and interoperability are relevant to the Recommendation. End users can provide guidance on any potential consumer impacts of a new service roll-out or product release; and contribute in many other ways – for example:

- by ensuring processes are open and transparent, which will lead to greater fairness and effectiveness in standards-setting, and increase public confidence in standards;

- by giving examples of how products and services are actually used (or not used as intended) in practice. This in turn will assist with the development of user manuals, customer information, performance requirements and test methods;

- by providing data on safety aspects to enable safety matters to be properly addressed;

- by contributing expertise about end-user needs, usability, accessibility, privacy, security and end-user protection;

- by broadening potential markets for products and services and increasing global trade through the development of standards that take flexibility, interoperability and backwards compatibility into consideration;

- by assisting in keeping design costs down through avoiding the need for costly revisions; and

- by being involved in product testing as well as feasibility and pilot studies.

8   Checklist for end-user involvement in ITU-T Recommendations development

It is recommended that ITU-T SGs use the checklist below in determining what level of end-user involvement is required in the development of Recommendations.

NOTE – This checklist is not intended to be an exhaustive step-by-step guide, nor is it intended to be a replacement for direct consultation with end users. Its use should improve the process of development of ITU-T Recommendations which have direct end-user implications.

ITU-T SGs may find the *Guide for Consumer Involvement in International Standards* adopted at the ninth Global Standards Collaboration Meeting (GSC-9) held in Seoul, Korea, 2004, to be a useful reference (see Annex B).

Checklist for involving end users in the development of ITU-T Recommendations

Question		Yes	No	Comments
To be considered when an SG Question is being developed				
Scope	Does the Recommendation have direct relevance to equipment that end users (both technically proficient and otherwise) will be using?			
Functionality	Does the Recommendation have implications for compatibility and interoperability with other technology, or network integrity that will directly affect end users?			
Usability	Does the Recommendation have implications for useability (e.g. complex operation) or accessibility (e.g. use by people with disabilities or with limitations such as remoteness)?			
Safety	Does the Recommendation have implications for safety, health effects, ergonomics or access to emergency services?			
Privacy	Does the Recommendation have implications for the privacy and the protection of end users' personal details?			
Impact assessment	Could end-user representatives assist with monitoring whether the Recommendation is fit for the purposes of end users (including those with specific needs), taking into account safety and environmental responsibility?			
Inclusiveness	Where end-user involvement is relevant or necessary, will representatives from the relevant groups and communities (e.g. disability support, aged groups, remote communities) be consulted and be part of the process in the development of the Recommendation?			
To be considered before consent is granted or SG determination				
Effective communication of intended outcomes	Is there benefit in developing a communications plan by which end users are kept informed and involved in your study group activities?			
Promotion of standards work	Could the study group benefit from end-user representatives promoting the study group's work and its Recommendation(s) to consumer-based organizations?			
A majority of "yes" ticks is an indication that end users need to be involved in the process.				

9 TSB assistance

The Telecommunication Standardization Bureau (TSB) is able to assist the process of end-user involvement by using its established provisions to:

• educate end users on the standardization process and procedures (e.g. workshops), including information about end users' role in the process and how they can contribute their ideas; and

• arrange for ITU-T documents to be accessible via different formats (e.g. Braille) upon request.

Annex A

Example of a Recommendation where user needs were reflected in the development process

An example of a case where end-user needs were reflected in the development of a new Recommendation is:

X.142 – *Quality of service metrics for characterizing Frame Relay/ATM service interworking performance*

Recommendation X.142 defines Quality of Service metrics for characterizing performance in the case of Frame Relay/ATM service interworking. The specified metrics in this Recommendation can be used to quantify the performance of either the FR/ATM interworking function/unit or the quality of the end-to-end data connection. The specified metrics provide a simple manner by which either users or network operators could characterize the end-to-end performance. Importantly, the metrics can be used to provide a user-oriented perspective of end-to-end performance.

It is important to note that, in developing this Recommendation, it was not until the work was well progressed and the proposed technical solution agreed that it became clear that the Recommendation actually addressed both a network operator and a specific user need.

Annex B

Guide for Consumer Involvement in International Standards

This *Guide for Consumer Involvement in International Standards* outlines the basic rights of a consumer to have access to information and communication. It is based on the UN Guidelines for Consumer Protection which stem from eight agreed consumer rights:

1) The right to safety
2) The right to be informed
3) The right to choose
4) The right to be heard
5) The right to satisfaction of basic needs
6) The right to redress
7) The right to education
8) The right to a healthy environment

These eight rights are summarized into the standards-setting process in the telecommunication and information and communication technologies environment as follows:

B.1   The right to safety – Uniform minimum consumer standards

A high level of consumer protection should always be applied. Technical standards need to be formulated in this respect with particular attention to the need to ensure safe access to products and services for as many consumers as possible. This applies equally to eliminating operational risks, and to the maintenance of reliability and security.

B.2   The right to be informed – Equitable access to information

Standards bodies should provide easy and equitable access to draft standards in order to ensure input from all stakeholders. A brief explanatory statement, outlining any consumer issues that may be relevant, should accompany each technical standard published. Information should be available in a variety of formats to ensure equitable access by all consumers.

B.3   The right to choose – Fair competition in supply

Standards should build upon the concept of *design for all* or *universal design.* This means designing products and services for as many people as possible using existing and yet-to-be-developed tools and guidelines to assist standard-makers in enhancing the consumer's right to use and choose**.**

B.4   The right to be heard – Timely and appropriate consultation and participation

Increasing global trade is placing a greater emphasis on international standards in all fields and it is essential for the credibility of the standardization processes to ensure an effective global consumer input. This can be achieved by:

a) Implementing measures to support funding mechanisms for consumer participation in standards-setting;
b) Ensuring consumers can choose their preferred forms of communication, which means information should be available in a variety of formats;

c)   Supporting reasonable provision, where possible, for face-to-face consultation to occur, as appropriate;

d)   Accepting cultural diversity amongst consumers and recognizing and acknowledging their pre-existing knowledge and experience;

e)   Encouraging standards bodies to commit themselves to support measures allowing public access to work programmes and documents by stakeholders who are not represented – as stated, for example, in the WTO Code of Good Practice.

B.5   The right to satisfaction of basic needs – Affordability and ease of access

Standards should be developed with a clear view to avoiding unreasonably high costs, waiting times, and excessive usage difficulties.

It is essential that access to basic, low-cost products and services be maintained to provide consumers with a full range of choices appropriate to their needs.

Standards development must be flexible and sufficiently responsive to take into account new technology and backwards compatibility.

B.6   The right to redress – Effective complaint-handling processes

To protect the public interest, it is essential to establish conflict resolution mechanisms within the standards bodies, accessible not only to national standards bodies but also to recognized stakeholder organizations.

B.7   The right to education – Equitable access to appropriate training

Consumers must receive adequate support and training in the particular standards-setting area so that they may confidently and constructively participate in the process.

B.8   The right to a healthy environment – Security, privacy and safety

All standards should be drafted in such a way as to ensure:

a)   *Security:* as in the case of the Internet, mobile phone communications, etc.

b)   *Privacy:* personal information must be protected.

c)   *Safety*:

- Communications equipment, products and services must be safe to use.

- Systems enabling access to emergency services must be compatible and interoperable.

- People with disabilities using specific enabling devices as an adjunct to their standard equipment need product compatibility.

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