

I n t e r n a t i o n a l T e l e c o m m u n i c a t i o n U n i o n

RESOLUTIONS

**RADIOCOMMUNICATION
ASSEMBLY (RA-07)
GENEVA, 15-19 OCTOBER 2007**



Radiocommunication Sector



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RESOLUTION ITU-R 9-3*

Liaison and collaboration with other relevant organizations, in particular ISO and IEC

(1993-2000-2003-2007)

The ITU Radiocommunication Assembly,

bearing in mind

Article 50 of the ITU Constitution, and

considering

- a) that Goal 3 in Resolution 71 (Rev. Antalya, 2006) of the Plenipotentiary Conference calls for widening the Union's membership, extending participation and facilitating cooperation of an increasing number of administrations and organizations, as well as new actors, such as relevant WSIS stakeholders;
- b) that a number of organizations, including ISO and IEC, dealing with radiocommunications standardization, exist;
- c) that such organizations have the potential for identifying, defining and proposing solutions of particular problems of interest to the Radiocommunication Study Groups and for assuming responsibility for maintaining standards for such systems;
- d) that one objective of the Radiocommunication Study Groups is to harmonize the work in radiocommunications with that of regional/national bodies and other international bodies;
- e) that making reference in ITU-R Recommendations to organizations dealing with radiocommunications can minimize publication and translation costs to ITU, noting that it may increase the customer's total cost of acquiring such ITU-R Recommendations when the costs of non-ITU referenced documents are also included;
- f) that such organizations may offer a means of improving the dissemination and effectiveness of ITU-R Recommendations;
- g) that the establishment of appropriate arrangements with other organizations in relation to copyright issues is desirable,

noting

- a) that references to standards published outside of the ITU-R are not appropriate in ITU-R Recommendations that may be incorporated-by-reference into the Radio Regulations;
- b) that groups have been formed (e.g. the annual meeting of Standardization Organizations (SDOs)), at the international level, to exchange information on standardization, to facilitate harmonization of standards and to complement the formal processes of standardization bodies, in particular ITU, in the work of developing international standards;

* This Resolution should be brought to the attention of the Telecommunication Standardization Sector and the Telecommunication Development Sector.

- c) that procedures developed by Study Groups in conjunction with the Director of the Radiocommunication Bureau to address collaboration with other organizations for specific Recommendations, including the use of references, have been in place since 1999 and have worked very well;
- d) that, furthermore, pursuant to the decisions of the Radiocommunication Assembly (Istanbul, 2000), the Director of the Radiocommunication Bureau established in 2001 formal arrangements between the ITU and other organizations¹ successfully addressing collaboration, the exchange of documentation, and copyright issues;
- e) that joint activities between ITU-T and ISO/IEC on drafting common texts, including Recommendations, have been common practice for many years,

recognizing

- a) that the ITU Constitution (No. 145A) and the ITU Convention (No. 129A) were amended by the Plenipotentiary Conference (Marrakesh, 2002) to make explicit the Radiocommunication Assembly's responsibility to adopt the working methods and procedures for the management of the Sector's activities;
- b) that pursuant to No. 248A of the ITU Convention, following a procedure developed by the Sector, the Director of the Bureau may, in consultation with the Chairman of the Study Group concerned, invite an organization which does not participate in the Sector to send representatives to take part in the study of a specific matter in the Study Group concerned or subordinate groups,

resolves

- 1** that administrations should encourage organizations dealing with radiocommunications to take into account the global activities of the Radiocommunication Study Groups;
- 2** that ITU-R Recommendations, as determined by the Study Group, may reference approved standards which are maintained by other organizations;
- 3** that Radiocommunication Study Groups or groups established by the Study Groups, may liaise, collaborate, and exchange information in accordance with established principles (see Annex 1) with other organizations such as standard development organizations, universities, and industry organizations, and with partnership projects, forums, consortia, research collaborations;
- 4** that Annex 1 "Principles for interaction of ITU-R with other organizations" should be used as guidance for liaison and collaboration activities with other organizations,

instructs the Director, within the context of Annex 1

- 1** to develop guidelines for procedures for the contribution of material of other organizations to the work of the Study Groups or groups established by the Study Groups, including the use of references to documents of other organizations in ITU-R Recommendations;
- 2** to develop, in accordance with No. 248A of the ITU Convention, a procedure to invite organizations which do not participate in the Sector to take part in the study of specific matters,

further instructs the Director, in accordance with instructs the Director 1 and 2

- 3** to develop, as necessary, arrangements, including appropriate copyright agreements, with the other organizations not party to the common arrangements agreed with ISO and IEC:

¹ Arrangements have been established between ITU and the European Telecommunications Standards Institute (ETSI) and between ITU and the Society of Motion Picture and Television Engineers (SMPTE).

- a) to allow the use of references to documents of other organizations in ITU-R Recommendations; and
- b) to facilitate collaboration and coordination with other organizations in meetings of the Study Groups or groups established by the Study Groups and the contribution of material to these meetings,

instructs the Radiocommunication Advisory Group

to review these guidelines.

Annex 1

Principles for interaction of ITU-R with other organizations

1 Interaction of Radiocommunication Study Groups or groups established by the Study Groups (collectively referred to here as SGs) with other organizations principally falls into two key areas:

- a) references to documents of other organizations in ITU-R Recommendations;
- b) cooperation and coordination with other organizations in meetings of the SGs and the contribution of material to them, and possible development of common texts, including Recommendations.

2 For the purpose of interaction with the ITU-R, other organizations are those that are directly relevant to the work of the SGs and having acknowledged competency in the area of the work. Other organizations may include, but are not limited to, entities such as standard development organizations, partnership projects, forums, consortia, research collaborations, universities, and industry organizations.

3 Interaction of the SGs with other organizations should be directly related to the work of the SGs.

4 The use of collaborative arrangements between other organizations and the ITU-R should not be considered as a substitute for membership in the ITU-R. Membership status should always be encouraged where it is appropriate. However, it is recognized that this is not always possible and thus collaborative arrangements may be desirable. Involvement of other organizations with the ITU-R via collaborative arrangements should not adversely affect the rights and privileges of members.

5 Collaborative arrangements should be developed, as may be appropriate, taking into account the nature of the interaction. Such collaborative arrangements should only be as complex as necessary. For example, a general “blanket” guideline and procedure may be suitable for the more “casual” short-term interaction rather than individualized arrangements.

6 Information flows between the SGs and the other organizations should be officially conducted at the Radiocommunication Bureau level. This provides a uniform point of contact with the ITU-R and allows for management, maintenance, review, oversight and auditing of such information flows by the ITU-R.

7 It is prudent that collaborative arrangements with other organizations have a defined period of validity and that these arrangements be periodically reviewed by the Director and appropriate reports made to the Study Group and the Radiocommunication Advisory Group concerning the interaction of the ITU-R with other organizations.

8 With regard to the use of references, the guidelines and procedures should also address aspects such as when references are appropriate to be used in ITU-R Recommendations, how normative/informative references should be used, how to document and maintain references.

9 The referencing of documents of other organizations may involve business matters and legal details, including conformity with ITU copyright and patent policies. These matters should be addressed, as appropriate, by the Director on an individual basis.

10 Details of guidelines for procedures related to the interaction of ITU-R with other organizations should come under the purview of the Director.

RESOLUTION ITU-R 56*

Naming for International Mobile Telecommunications

(2007)

Introduction

International Mobile Telecommunications-2000 (IMT-2000) systems provide access to a wide range of telecommunication services, supported by the fixed telecommunication networks (e.g. PSTN/ISDN/IP), and to other services which are specific to mobile users.

To meet the ever increasing demands for wireless communication, and the expected higher data rates needed to meet user demands, IMT-2000 is being continually enhanced and systems beyond IMT-2000 are envisaged. The framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000 are described in Recommendation ITU-R M.1645.

Resolution 228 (Rev.WRC-03) notes that appropriate naming is to be developed for the future development of IMT-2000 and systems beyond IMT-2000. Thus the term “systems beyond IMT-2000” has been used as a temporary name. This Resolution clarifies the relationship between the terms “IMT-2000” and “the future development of IMT-2000” and gives the new name to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000. Additional Recommendations and Reports will be developed to address other issues related to these systems in more detail.

Related Recommendations

- Recommendation ITU-R F.1399: Vocabulary of terms for wireless access.
- Recommendation ITU-R M.1224: Vocabulary of terms for International Mobile Telecommunications-2000 (IMT-2000).
- Recommendation ITU-R M.1457: Detailed specification of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000).
- Recommendation ITU-R M.1645: Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000.
- ITU-T Recommendation Q.1702: Long-term vision of network aspects for systems beyond IMT-2000.

* This Resolution should be brought to the attention of ITU-T Study Group 19.

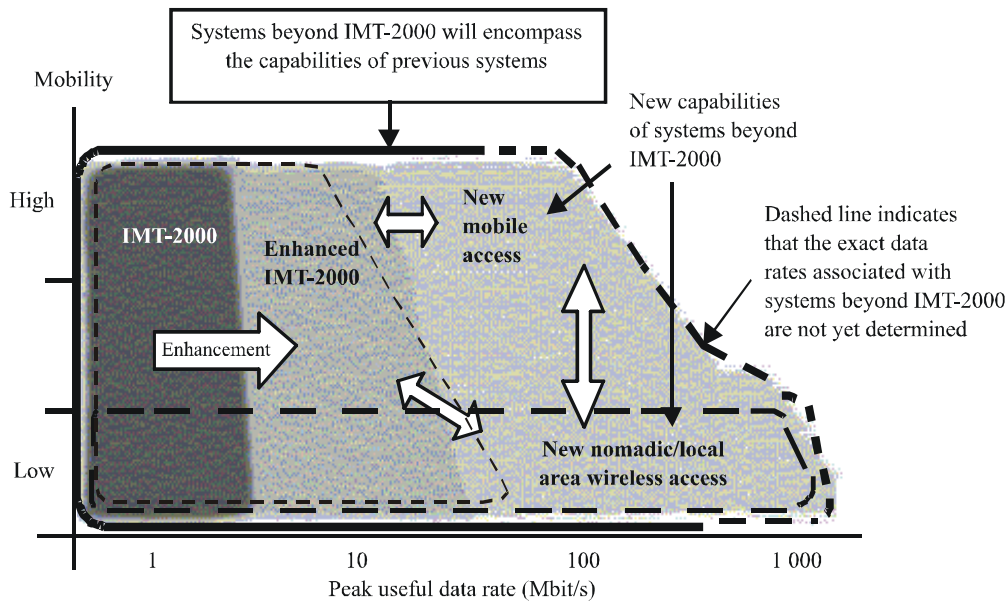
The ITU Radiocommunication Assembly,

considering

- a) Resolution 228 (Rev.WRC-03) *noting d*), which states “that ITU-R has already begun considering appropriate naming for the future development of IMT-2000 and systems beyond IMT-2000, for a decision in advance of WRC-07”;
- b) the framework for the future development of IMT-2000 and systems beyond IMT-2000 is described in Recommendation ITU-R M.1645, and Fig. 1 below, copied from this Recommendation, illustrates the capabilities of IMT-2000 and systems beyond IMT-2000;

FIGURE 1

Illustration of capabilities of IMT-2000 and systems beyond IMT-2000



↔ Denotes interconnection between systems via networks, which allows flexible use in any environment without making users aware of constituent systems

○ Nomadic/local area access systems

○ Digital broadcast systems

Dark shading indicates existing capabilities, medium shading indicates enhancements to IMT-2000, and the lighter shading indicates new capabilities of systems beyond IMT-2000.

The degree of mobility as used in this Figure is described as follows: low mobility covers pedestrian speed, and high mobility covers high speed on highways or fast trains (60 km/h to ~250 km/h, or more).

1645-02

- c) that there is a need for a root name to cover the capabilities of “IMT-2000, future development of IMT-2000 and systems beyond IMT-2000”;
- d) that the use of “IMT-2000” remains the designation appropriate to describe IMT-2000;
- e) that developing a new term to identify the enhancements or future developments of IMT-2000, without any time limitation, would create confusion and is unnecessary;

- f) that the new name would benefit from not being time limited or date specific,
recognizing
- a) that ITU is the internationally recognized entity that has sole responsibility to define and to recommend the standards and frequency arrangements for IMT systems, with the collaboration of other organizations such as standard development organizations, universities, industry organizations and with partnership projects, forums, consortia and research collaborations;
- b) that wireless access technologies that may address some of the capabilities of systems beyond IMT-2000 have been or are being developed for deployment within or prior to the timeframes expressed in Recommendation ITU-R M.1645;
- c) that ITU works globally in accordance with Resolution ITU-R 9-2 to create a unified wireless mobile communications future;
- d) that ITU may specify its processes and principles for the development of systems beyond IMT-2000;
- e) that the detailed specifications of the radio interfaces of International Mobile Telecommunications (IMT-2000) are defined in Recommendation ITU-R M.1457 and that future revisions of this Recommendation will also define the future development of IMT-2000;
- f) that Recommendations and Reports will be developed to define the radio interfaces of systems beyond IMT-2000, taking into consideration the framework established in Recommendation ITU-R M.1645, “Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000”,

resolves

- 1** that the term “IMT-2000” encompasses also its enhancements and future developments¹;
- 2** that the term “IMT-Advanced” be applied to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000²; and
- 3** that the term “IMT” be the root name that encompasses both IMT-2000 and IMT-Advanced collectively.

¹ The detailed specifications of the IMT-2000 radio interfaces are in Recommendation ITU-R M.1457.

² As described in Recommendation ITU-R M.1645, systems beyond IMT-2000 will encompass the capabilities of previous systems, and the enhancement and future developments of IMT-2000 that fulfil the criteria in *resolves* 2 may also be part of IMT-Advanced.

RESOLUTION ITU-R 57

Principles for the process of development of IMT-Advanced

(2007)

The ITU Radiocommunication Assembly,

considering

- a) that Resolution 228 (Rev.WRC-03) invites ITU-R to further study technical and operational issues relating to the future development of IMT-2000 and IMT-Advanced, and develop Recommendations and Reports as required;
- b) that Question ITU-R 229/8 addresses the future development of IMT-2000 and IMT-Advanced;
- c) that Recommendation ITU-R M.1645 defines the framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000 for the radio access network based on the global user and technology trends, and the needs of developing countries;
- d) that Resolution ITU-R 56 specifies the nomenclature for the future development of IMT-2000 and systems beyond IMT-2000 through names uniquely associated with the advancement and continuation of International Mobile Telecommunications (IMT);
- e) that the future development of IMT-2000 and IMT-Advanced is foreseen to address the need for higher data rates than those of currently deployed IMT-2000 systems;
- f) that, for global operation and economy of scale, which are key requirements for the success of mobile telecommunication systems, it is desirable to agree on a harmonized time-frame for developing common technical, operational and spectrum-related parameters of systems, taking account of relevant IMT-2000 and other experience;
- g) that maximizing the commonality between IMT-Advanced air interfaces may lead to reduced complexity and a lower incremental cost of multi-mode terminals;
- h) that consensus-building is used to facilitate agreements within ITU-R,

noting

- a) that pursuant to Article 44 of the ITU Constitution, Member States shall endeavour to apply the latest technical advances as soon as possible;
- b) that globally harmonized spectrum for IMT-Advanced is desirable;
- c) that the ITU process for IMT-2000 standardization has been essentially beneficial to the development of mobile telecommunications,

recognizing

- a) that ITU-R has policies regarding Intellectual Property Rights (IPR) as expressed in Resolution ITU-R 1 as well as in Administrative Circular CA/148 (dated 15 April 2005), in which “attention is drawn to the importance of early disclosure and declaration of patents in order to avoid potential problems in the approval and eventual application of ITU-R Recommendations”;

- b) that a consensus-building process should ensure the potential for wide industry support of the radio interfaces that are developed for IMT-Advanced and that there is an expectation that the development of candidate radio interface technologies will take into account the objectives recommended in Recommendation ITU-R M.1645;
- c) the importance of facilitating global circulation;
- d) that the IMT-Advanced standardization process should be streamlined to incorporate the latest technology innovations to address user needs;
- e) that the term “IMT-Advanced” be applied to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000¹;
- f) that ITU is the internationally recognized organization that has sole responsibility to define and to recommend the standards and frequency arrangements for IMT systems, with the collaboration of other relevant organizations such as standard development organizations, universities, industry organizations and with partnership projects, forums, consortia and research collaborations;
- g) that wireless access technologies that may address some of the capabilities of systems beyond IMT-2000 have been or are being developed for deployment within or prior to the time-frames expressed in Recommendation ITU-R M.1645;
- h) that adequate spectrum identification on a global basis is a prerequisite for the success of the future development of IMT-2000 and systems beyond IMT-2000, although new technologies might assist in this task;
- j) that the details related to IMT-2000, future development of IMT-2000 and systems beyond IMT-2000 will be specified in Recommendations and Reports to be developed taking into account the framework established in Recommendation ITU-R M.1645, “Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000”;
- k) that particular needs of developing countries must be considered with the aim of bridging the existing digital divide, with the objective of facilitating interoperability of different radio interfaces,

resolves

- 1** to develop the Recommendations and Reports for IMT-Advanced, including Recommendation(s) for radio interface specifications;
- 2** that the development of Recommendations and Reports for IMT-Advanced shall be an ongoing and timely process with defined outputs that take into account developments external to ITU-R;
- 3** that radio interface technologies that are proposed to be considered for IMT-Advanced shall be developed based on submissions from Member States, Sector Members and Associates of relevant ITU-R study groups, and may additionally be based on submissions invited from external organizations, in accordance with the principles set out in Resolution ITU-R 9-3;

¹ As described in Recommendation ITU-R M.1645, systems beyond IMT-2000 will encompass the capabilities of previous systems, and the enhancement and future developments of IMT-2000 that fulfil the criteria in *resolves* 2 of Resolution ITU-R 56 may also be part of IMT-Advanced.

4 that the process for developing Recommendations and Reports for IMT-Advanced shall give equal opportunity to all proposed technologies to be evaluated against the requirements for IMT-Advanced;

5 that new radio interfaces that are developed over time should be considered for inclusion in IMT-Advanced in a timely fashion, and, if appropriate, that the relevant Recommendations be revised;

6 that, in light of the above *resolves*, this process shall include:

- a) the definition of minimum technical requirements and evaluation criteria, based on the framework and overall objectives of IMT-Advanced, that support the new capabilities expressed in Recommendation ITU-R M.1645, taking into account end-user requirements and without unnecessary legacy requirements;
- b) an invitation for Members of ITU-R, through a circular letter, to propose candidate radio interface technologies for IMT-Advanced;
- c) additionally, an invitation to other organizations to propose candidate radio interface technologies for IMT-Advanced, under the scope of liaison and collaboration with such other organizations through Resolution ITU-R 9-3. In such invitations the attention of these organizations shall be drawn to the current ITU-R Intellectual Property Rights (IPR) policies;
- d) an evaluation by ITU-R of the radio interface technologies proposed for IMT-Advanced to ensure that they meet the requirements and criteria defined in 6 a) above. Such an evaluation may utilize the principles for interaction of ITU-R with other organizations as detailed in Resolution ITU-R 9-3;
- e) consensus-building with the objective of achieving harmonization in response to the *considering* and *recognizing* paragraphs of this Resolution and which would have the potential for wide industry support of the radio interfaces that are developed for IMT-Advanced;
- f) a standardization phase where ITU-R develops the IMT-Advanced radio interface specification Recommendation(s) based on the results of an evaluation report (defined in *resolves* 6 d)) and of consensus-building (defined in *resolves* 6 e)) ensuring that the specifications meet the technical requirements and evaluation criteria as defined in 6 a) or 6 g). In such a standardization phase, work may proceed in cooperation with relevant organizations external to ITU in order to complement the work within ITU-R, using the principles set out in Resolution ITU-R 9-3;
- g) reviews of the minimum technical requirements and evaluation criteria defined in 6 a), taking into account technology advances and end-user requirements changing with time. As the minimum technical requirements and evaluation criteria are changed, these will be designated as separately identifiable versions for IMT-Advanced. The process will include review of existing versions to determine whether they should remain in force;
- h) an ongoing and timely process where new radio interface technology proposals may be submitted and existing radio interface specifications can be updated. The process should have flexibility to allow proponents to seek evaluation against any version of the approved criteria currently in force,

instructs the Director of the Radiocommunication Bureau

1 to ensure that proponents of IMT-Advanced radio interface technologies and standards are aware of ITU-R IPR policy pursuant to Resolution ITU-R 1-5;

2 to provide the necessary support and to implement suitable procedures to meet the requirements of the *resolves* above, including the sending of a circular letter calling for radio interface technologies proposals.
