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SERIES D: GENERAL TARIFF PRINCIPLES

General tariff principles – Charging and accounting in the mobile services

Charging, billing, accounting and settlement principles for Global Mobile Personal Communications by Satellite (GMPCS) for the international telephone service

ITU-T Recommendation D.96

(Previously CCITT Recommendation)



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ITU-T RECOMMENDATION D.96**CHARGING, BILLING, ACCOUNTING AND SETTLEMENT PRINCIPLES FOR
GLOBAL MOBILE PERSONAL COMMUNICATIONS BY SATELLITE (GMPCS)
FOR THE INTERNATIONAL TELEPHONE SERVICE****Summary**

This Recommendation deals with the charging, billing, accounting and settlement issues and the relevant relationships that arise from the provision of access to their international telephone service by GMPCS Systems. The purpose of this Recommendation is to give guidance on those issues. Relations between different entities involved in the provision of service over the same GMPCS system should be determined through negotiations among the concerned parties in consideration of the provisions detailed in Recommendation D.96.

Source

ITU-T Recommendation D.96 was prepared by ITU-T Study Group 3 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on 17 December 1999.

FOREWORD

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

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

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

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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Recommendation D.96

CHARGING, BILLING, ACCOUNTING AND SETTLEMENT PRINCIPLES FOR GLOBAL MOBILE PERSONAL COMMUNICATIONS BY SATELLITE (GMPCS) FOR THE INTERNATIONAL TELEPHONE SERVICE

(Geneva, 1999)

1 Introduction

Advances in satellite technology have made it possible for GMPCS systems to have the capability to serve any point on the earth's surface at any time. The link between the GMPCS user terminal and the system is a satellite communication channel provided on a call-by-call basis.

The potential of this new development was seen to be great enough to warrant the convening of the first World Telecommunication Policy Forum (WTPF) in October 1996 to discuss and create an understanding of GMPCS. The Final Report contains five Opinions. Opinion 4 led to the development of the Memorandum of Understanding to Facilitate Arrangements for Global Mobile Personal Communications by Satellite, Including Regional Systems (GMPCS-MoU). Opinion 5 led to an agreement on a set of regulatory, technical and operational factors to be considered where GMPCS is to be implemented.

One concept addressed at the WTPF was that GMPCS networks seek to offer services to users similar to those offered by terrestrial cellular radio mobile systems, but on a wider geographical basis. The main offering is that of access to the international public telephone service.

The ITU-T recognized the service and operational need for GMPCS systems to have international telephone numbers for their users and to meet this need, agreed to the concept of a shared E.164 country code. The manner in which the E.164 country code is shared is based on an *Identification Code* that follows the E.164 country code.

The terms and conditions expressed in this Recommendation only apply if the traffic relationships between participating GMPCS systems and network operators are agreed to by all concerned parties and authorized by the appropriate national authorities as necessary.

This Recommendation does not preclude the application of other terms and conditions arising from the national laws and sovereign rights of any country and/or geographical area.

2 Scope

This Recommendation deals with the charging, billing, accounting and settlement issues and the relevant relationships that arise from the provision of access to the international telephone service by GMPCS Systems. Relations between different entities involved in the provision of service over the same GMPCS system should be determined through negotiations among the concerned parties in consideration of clause 8 below.

3 Purpose

The purpose of this Recommendation is to give guidance on the charging, billing, accounting, and settlement issues that arise in the provision of the international telephone service by GMPCS systems.



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4 References

The following ITU-T Recommendations and other references contain provisions, which through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

4.1 ITU-T Recommendations

- ITU-T Recommendation D.140 (1998), *Accounting rate principles for international telephone services*.
- ITU-T Recommendation D.150 (1999), *New system for accounting in international telephony*.
- ITU-T Recommendation D.155 (1996), *Guiding principles governing the apportionment of accounting rates in intercontinental telephone relations*.
- ITU-T Recommendation D.170 (1998), *Monthly telephone and telex accounts*.
- ITU-T Recommendation D.171 (1988), *Adjustments and refunds in the international telephone service*.

This list of Recommendations represents those that are most commonly applied in the accounting and settlement process in the provision of GMPCS telephone service. This does not preclude other relevant Recommendations applying in specific circumstances, such as D.110, Charging and accounting for conference calls.

4.2 Other referenced documents

- 1) Final Report of the First World Telecommunication Policy Forum (WTPF, Geneva, 21-23 October 1996).

This report contains 5 Opinions as follows:

- Opinion No. 1: The Role of GMPCS in the Globalization of Telecommunications.
 - Opinion No. 2: The Shared Vision and Principles for Global Mobile Personal Communications by Satellite (GMPCS).
 - Opinion No. 3: Essential Studies by the ITU to Facilitate the Introduction of Global Mobile Personal Communications by Satellite (GMPCS).
 - Opinion No. 4: Establishment of a Memorandum of Understanding to Facilitate the Circulation of Global Mobile Personal Communications by Satellite User Terminals (GMPCS-MoU).
 - Opinion No. 5: Implementation of GMPCS in Developing Countries.
- 2) Memorandum of Understanding to Facilitate Arrangements for Global Mobile Personal Communications by Satellite, Including Regional Arrangements. (GMPCS-MoU) (Finalized 14 February 1997)
 - 3) Arrangements pursuant to the GMPCS-MoU to facilitate the introduction and development of Global Mobile Personal Communications by Satellite. (GMPCS) (Geneva, 6-7 October 1997)

4) Report of the Opinion 5 Group of Experts. (WTDC-98, Malta, 23 March-1 April 1998)

The above referenced documentation treats topics such as:

- the sovereign right of a country and/or a geographical area to control its international telecommunication relationships;
- the need to respect the International Telecommunication Regulations of the ITU;
- the requirement to comply with the relevant taxation regimes; and
- the contribution towards providing universal access to telecommunications.

5 Charging, billing, accounting and settlement

Charging and billing issues are the subject of commercial negotiations and/or national regulations.

The GMPCS systems which offer their users access to the international telephone service have been designed to comply with the accounting and settlement arrangements for international traffic as laid out in the relevant ITU-T Recommendations and the GMPCS-MoU.

Each GMPCS System is identified by its Identification Code. The combination of the shared E.164 country code with an Identification Code creates a unique combination on which the call routing and charging may be based. The specifics of this routing and charging will vary according to the technical attributes of the system and existing business arrangements.

Between a GMPCS system and the terrestrial network of any country there may be two basic traffic patterns: either a direct relationship or a transit relationship for the exchange of traffic.

For a direct traffic relationship to exist there must be a direct trunk connection between the designated switching centre of the GMPCS system and the designated international switching centre of the terrestrial network.

In the case of a transit relationship, the network on which a call originates or terminates has a direct connection with a designated international switching facility of another country which itself has a direct connection to the designated switching centre of the GMPCS system. There may be cases where it is necessary to utilize the international switching facilities of more than one country.

5.1 Relationship between a GMPCS system and a terrestrial network

In the relationship between a GMPCS system and a terrestrial network there are four call patterns which are described and illustrated below.

A = Country with a terrestrial network operator with direct connection to GMPCS System Operator B and a Terrestrial Network Operator in Country C.

B = GMPCS Operator with a direct connection to a Terrestrial Network Operator in Country A.

C = Country with a terrestrial Network Operator with a direct connection to a Terrestrial Network Operator in Country A.