

INTERNATIONAL TELECOMMUNICATION UNION



F.111

THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE

## TELEGRAPH AND MOBILE SERVICE OPERATIONS AND QUALITY OF SERVICE

# PRINCIPLES OF SERVICE FOR MOBILE SYSTEMS

**Recommendation F.111** 



Geneva, 1991

## FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT 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 Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation F.111 was prepared by Study Group I and was approved under the Resolution No. 2 procedure on the 11 of March 1991.

#### CCITT NOTE

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

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## **Recommendation F.111**

#### PRINCIPLES OF SERVICE FOR MOBILE SYSTEMS

#### 1 Scope

1.1 This Recommendation defines the principles applicable to international public correspondence service provided by mobile systems connected to the international telecommunication (fixed) networks. This Recommendation applies to aeronautical, land and maritime mobile-satellite and terrestrial systems.

#### 2 Introduction

2.1 There is an increased availability of mobile telecommunication systems on an international, regional and national basis. International mobile satellite systems offer telephone, data and telex services to aeronautical, land and maritime mobile users. Regional and national cellular systems, both analogue and digital, are in operation or at an advanced planning stage. Users of these mobile systems expect to be connected to the international telecommunications networks and be able to obtain international services available to fixed network customers. In order to ensure that both fixed and mobile user needs are met, principles of service for both satellite and terrestrial mobile systems when interworking with the international telecommunication networks are presented in this Recommendation.

## 3 Services

3.1 The services offered by mobile systems (e.g. voice, data, telex) when interworking with the international telecommunication networks should, as far as practicable, be similar to those offered on fixed networks.

## 4 Operation

4.1 When interworking between the mobile system and the fixed network the operational procedures for mobile system users should, wherever possible, be the same as for fixed networks. The same tones, announcements, service codes and signals, etc., used in the fixed network should be recognized and where appropriate returned by the mobile system.

4.2 Any numbering plan for a national mobile system normally is part of the relevant national numbering plan of the country in which it is resident.

4.3 For international mobile systems the numbering plan should either be derived from the national numbering plan of the participating countries or follow the international numbering plan applicable for the services to be provided.

4.4 There should be mechanisms in place to cater for the needs of any call recording, billing and international accounting functions that might be required.

#### 5 Service between mobile systems

5.1 There should be no restrictions to establishing international calls between mobile terminals in different mobile systems via the relevant fixed network(s). For example, a user of a land mobile cellular terminal should be able to make an international telephone call to a mobile satellite terminal using the established international routing methods and procedures.

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## 6 Quality of service

6.1 The quality of service (e.g. bit error rate for data) of a mobile system should be such that the service experienced by the mobile user should be, where practical, similar to that of a user of a fixed network service.

## 7 Service limitations

7.1 It is recognized that because of various reasons that mobile systems may not provide all the same services to their users as provided to users of the fixed telecommunication networks. Any limitation on service imposed by the mobile system on its users should, as far as practicable, not adversely affect the quality of service provided to fixed network users when the systems are interconnected.

## 8 Special mobile services

8.1 It is recognized that mobile systems often provide services other than the conveyance of public correspondence. Mobile services may involve special services, e.g. priority and/or preemption treatment for safety of life messages, navigation, etc.

8.2 Facilities for such special services are not necessarily available within the fixed networks. Where necessary Administrations should make any arrangements for the provision of these services (e.g. dedicated circuits), which is then a national matter outside the scope of CCITT Recommendations.

8.3 CCITT Recommendations cover the effects of such special services on calls to/from the fixed networks.