



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.210

(09/94)

**CHARGING AND ACCOUNTING IN INTERNATIONAL
TELECOMMUNICATION SERVICES**

**GENERAL CHARGING AND ACCOUNTING
PRINCIPLES FOR INTERNATIONAL
TELECOMMUNICATION SERVICES
PROVIDED OVER THE INTEGRATED
SERVICES DIGITAL NETWORK (ISDN)**

ITU-T Recommendation D.210

(Previously "CCITT Recommendation")

FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (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 (Helsinki, March 1-12, 1993).

ITU-T Recommendation D.210 was revised by ITU-T Study Group 3 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 15th of September 1994.

NOTE

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

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PREAMBLE

This Recommendation sets out the general principles for charging and accounting to be applied by Administrations for the provision of international telecommunication services over an Integrated Services Digital Network (ISDN). These services are defined in the relevant ITU-T Recommendations.

Charging and accounting principles for interworking between services provided over the ISDN and services provided over other networks are contained in other Recommendations in the Series D.200.

Recommendation D.210

GENERAL CHARGING AND ACCOUNTING PRINCIPLES FOR INTERNATIONAL TELECOMMUNICATION SERVICES PROVIDED OVER THE INTEGRATED SERVICES DIGITAL NETWORK (ISDN)

(Melbourne, 1988, revised in 1994)

The ITU-T,

considering

- (a) that an Integrated Services Digital Network (ISDN) provides digital connections between user-network interfaces, enabling Administrations to offer integrated access to a wide range of international services in association with a multi-service signalling system;
- (b) that it is desirable to achieve as far as practicable the harmonization of charging and accounting principles for the international services to be provided over the ISDN;
- (c) that charging and accounting principles and structures for the ISDN should be flexible enough to accommodate the variety of ISDN implementation and regulatory approaches that apply in different countries;
- (d) that it is desirable to adopt charging and accounting structures, which are as simple and easy to understand as is practicable with the wide range of services envisaged;
- (e) that the installation of the ISDN in various countries will in all probability take place in several stages known as the "transition phase" during which ISDN and other networks will coexist and interwork, and that during this phase due account should be taken of charging and accounting structures and levels for services provided over other networks,

recommends

1 General principles

The charging and accounting principles applicable to the services to be provided over the ISDN should:

- a) take into account the provisions of existing D-Series and other pertinent ITU-T Recommendations;
- b) take into account the different categories of service as defined in Recommendations I.230, I.240 and I.250 (see Annex A);
- c) take into account the network resources and the functions required for the provision of the services requested and their degree of utilization;
- d) not be discriminatory, i.e. should not depend on the type of information transmitted except where the costs incurred by the Administrations differ;
- e) ensure for Administrations a revenue which is commensurate with the costs borne by them;
- f) be based on the principle that each subscriber who authorized a specific service component would be billed by that subscriber's Administration.

2 Collection charges

2.1 Collection charges are a national matter.

2.2 Components

Collection charges for the ISDN may be divided into two fundamental components:

- the access component;
- the utilization component.

2.2.1 Access component

This component is intended to compensate Administrations for the facilities required for a customer to access a service or services, (i.e. those facilities specifically provided to that customer), and is independent of utilization.

Network access charges will be determined by national policy and may take account of the type of access provided and the type of services to which the customer subscribes.

2.2.2 Utilization component

2.2.2.1 Utilization charges should be in accordance with the service(s) requested by the customer and the basis of provision (demand, reserved¹⁾ or permanent¹⁾ basis).

These charges should in principle be determined on the basis of the network resources and any additional functions required to provide the service requested by the customer.

In the event that the service requested by the customer cannot be provided due to limitations in the network connection, but the customer elects to proceed with the call, the charges should be determined on the basis of the capability that was provided in order to complete the call.

In the event that services requested by the customer cannot be provided due to limitations in the terminal function, the charges should be determined on the basis of the network resources provided.

2.2.2.2 In principle, there should be no discrimination between telecommunication services which require the same resources and/or functions to provide them.

Additional charges may be raised for some supplementary services.

2.2.2.3 Utilization charges normally depend on one or more of the following parameters:

- service requested;
- basis of provision;
- duration of communication and/or the volume of data transmitted by the user;
- distance between correspondents;
- time of usage (to allow for modulation of tariffs according to peak/off-peak periods);
- call set-up;
- call attempts (for further study).

3 Accounting

3.1 Where applicable, Administrations should, by agreement, establish the accounting rate(s) for a given relation for a given telecommunications service.

3.2 International accounting rates should relate to the utilization of the network and should in principle be determined by the network resources and functions required to provide the service(s) requested by the customer.

3.3 In principle, there should also be no discrimination between the level of accounting rate for services which require the same network resources and functions to provide them.

3.4 The accounting rate may be supplemented by additional components where additional functions in the network of the country of destination and/or transit are required to support requested teleservice and supplementary services (i.e. in addition to the supporting bearer capability).

¹⁾ Principles for the permanent basis and reserved basis are for further study.

NOTE – *Transition phase*: During the transition phase, Administrations may make adjustments to the application of the provisions of this Recommendation (see Recommendation D.251) in order to take into account:

- the arrangements that will have to be made to ensure interworking between the ISDN and other networks;
- the structures and levels of the charges in force and the effect of the evolution of tariffs on Administrations' income;
- provisions contained in relevant ITU-T Recommendations particularly with respect to accounting.

Annex A

Summary description of bearer services, teleservices and supplementary services

(This annex forms an integral part of this Recommendation)

The different categories of service as defined in Recommendations I.230, I.240 and I.250, and the relationship between them are summarized as follows:

Figure A.1 shows in a simplified graphic manner the scope of these service categories and the relationships between them.

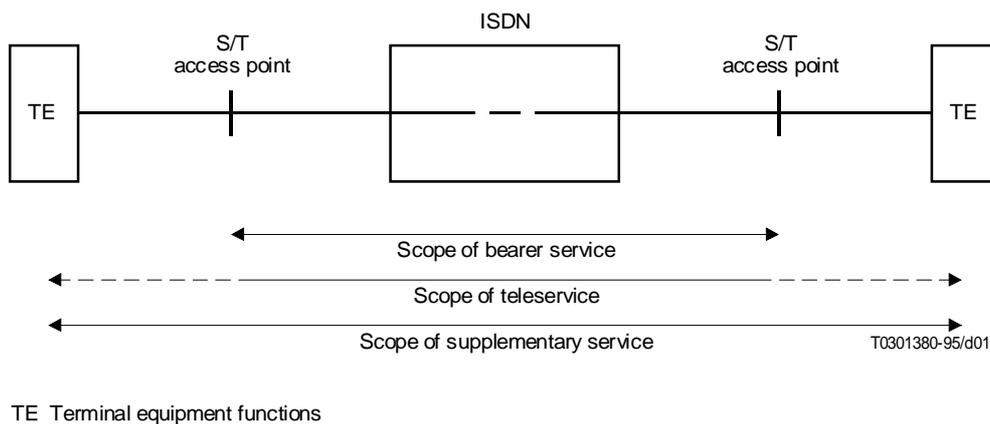


FIGURE A.1/D.210

Bearer services provide for information transfer between ISDN access points. They are characterized by a set of low layer attributes including information transfer and access attributes depicting the bearer capability associated with each bearer service, and general attributes. The attribute method of characterizing services is described in Recommendation I.130.

Teleservices provide the full capability for communication by means of terminal equipment functions and network functions and possibly functions provided by dedicated centres. Teleservices are characterized by the low layer attributes used to describe bearer services, and a set of high level attributes. The high level attributes generally relate to the functions and protocols of layers 4 to 7 of the Open Systems Interconnection (OSI) model.

Supplementary services modify or supplement bearer services and teleservices. They cannot be offered as stand alone services and must be offered in association with bearer services or teleservices.