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CCITT

THE INTERNATIONAL
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CONSULTATIVE COMMITTEE

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**TELEMATIC, DATA TRANSMISSION, ISDN
BROADBAND, UNIVERSAL, PERSONAL
TELECOMMUNICATIONS AND
TELECONFERENCE SERVICES
OPERATIONS AND QUALITY OF SERVICE**

VIDEOTELEPHONY TELESERVICE FOR ISDN



Recommendation F.721

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.721 was prepared by Study Group I and was approved under the Resolution No. 2 procedure on the 4th of August 1992.

CCITT NOTES

- 1) In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.
- 2) A list of abbreviations used in this Recommendation can be found in Annex A.

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Recommendation F.721**VIDEOTELEPHONY TELESERVICE FOR ISDN***(1992)*

The CCITT,

considering

- (a) that considerable efforts have been undertaken worldwide in order to develop videotelephone equipment based on rapid improvements in the quality of video codec algorithms;
- (b) that videotelephones of some manufacturers are already available on the market;
- (c) that first trials of videotelephony have been performed nationally as well as internationally;
- (d) that a number of countries intend to introduce the videotelephone service as soon as possible;
- (e) that the ISDN will be an appropriate network for providing the videotelephony teleservice;
- (f) that ISDN is offered in a number of countries,

recognizes

the need for a standardized international videotelephony teleservice which will guarantee the compatibility of videotelephones on a worldwide basis and therefore,

recommends

that the videotelephony teleservice, where implemented, respect the requirements stated in this Recommendation.

1 Definition

The **videotelephony teleservice** is a symmetrical, bidirectional, realtime, audiovisual teleservice in which speech and moving pictures are interchanged by means of one or two B-channels, using 64 kbit/s circuit-mode connections in the ISDN. The picture information transmitted is sufficient for adequate representation of fluid movements of a person displayed in head and shoulders view.

2 Description**2.1 General description**

The videotelephony teleservice is defined as a fully standardized ISDN teleservice following the principles given in Recommendation I.210.

Two cases can be identified for the videotelephony teleservice:

Case I: Videotelephone based on using one circuit-mode 64 kbit/s connection.

Case II: Videotelephone based on using two circuit-mode 64 kbit/s connections.

For case I the 64 kbit/s connection carries both speech and video information; for case II the first connection either carries speech or both speech and some video information and the second connection carries video information.

The basic videotelephony teleservice is characterized by the transmission of moving pictures displayed continuously in colour, simultaneously with the speech of the persons involved in the call (generally two in the case of a point-to-point connection).

The speech quality of this teleservice must be at least as good as that applicable to the telephony teleservice in the 64 kbit/s ISDN based on bandwidths of 3.1 kHz or 7 kHz respectively.

The videotelephony teleservice shall allow the communication between:

- two users (e.g. terminals) in a point-to point configuration via the ISDN over one or two circuit mode 64 kbit/s connection(s);
- three or more users in a multipoint configuration as invoked by some supplementary services.

Videotelephone terminals must be capable of supporting the telephony teleservice.

An essential feature of the service is that, besides videotelephony, it also provides to the user the possibility to communicate with other ISDN telephone or videotelephone terminals by using only the speech communication facility. It shall be possible to use videotelephone terminals to communicate with 3.1 kHz telephone terminals connected to the public switched telephone network (PSTN).

2.2 Specific terminology

Fall-back: Procedure performed either by the network or by the calling videotelephone terminals to establish calls to 3.1 kHz telephone terminals.

Call 1: The first call invoked in the videotelephony teleservice. It identifies the first 64 kbit/s connection between the subscribers. The call is invoked for all the service cases.

Call 2: The second call invoked in the videotelephony teleservice. It identifies the second 64 kbit/s connection between the two subscribers. The call is invoked for case II only (2×64 kbit/s).

Retention timer: This timer specifies the amount of time that the network retains the call information of the original call upon encountering busy or being released. This timer is a network provider option. The value of this timer is greater than 15 seconds.

Videotelephone terminal: A terminal that supports the videotelephony teleservice.

3.1 kHz telephone terminal: A terminal that supports the telephony 3.1 kHz teleservice.

7 kHz telephone terminal: A terminal that supports the telephony 7 kHz teleservice.

3 Procedures

3.1 Provision/withdrawal

3.1.1 This teleservice may be provided after prior arrangement with the service provider or be generally available.

3.1.2 As a service provider option, the videotelephony teleservice can be offered with several subscription options which apply separately to each ISDN number, all or a group of ISDN numbers on the interface. For each subscription option, only one value can be selected.

Subscription option

Value

Maximum number of information channels available at the called user

m ,
where m is not greater than the number of information channels on the interface

Maximum number of total calls presented simultaneously at the called user

n ,
where n is not greater than the number of information channels on the interface

The called user is identified by either one ISDN number, all or a group of ISDN numbers on the interface.