



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

## I.530

(03/93)

### INTEGRATED SERVICES DIGITAL NETWORK (ISDN) INTERNETWORK INTERFACES

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### NETWORK INTERWORKING BETWEEN AN ISDN AND A PUBLIC SWITCHED TELEPHONE NETWORK (PSTN)

### ITU-T Recommendation I.530

(Previously "CCITT Recommendation")

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## FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. 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, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation I.530 was revised by the ITU-T Study Group XVIII (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

## NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 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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**Recommendation I.530****NETWORK INTERWORKING BETWEEN AN ISDN  
AND A PUBLIC SWITCHED TELEPHONE NETWORK (PSTN)***(Melbourne, 1988; ammended at Helsinki, 1993)***1 General**

In many countries, digitization of the existing PSTN has been ongoing over a number of years through the implementation of digital switching and transmission facilities. Furthermore, common channel signalling systems (e.g. Signalling System No. 6, Signalling System No. 7) have been introduced or will soon be introduced in these networks.

The digitization of the user network access is one of the steps by which an IDN becomes an ISDN. However, it is foreseen that this will be a long transition period for some networks.

Thus, the purpose of this Recommendation is to identify the interworking functions and requirements to support interworking between an ISDN and a PSTN.

**2 Scope**

The purpose of this Recommendation is to describe the general arrangements for interworking between ISDN and PSTN. Both the provision of ISDN voice transmission and data transmission services are within the scope of this Recommendation.

**3 Abbreviations**

For the purpose of this Recommendation, the following abbreviations are used:

|          |                                     |
|----------|-------------------------------------|
| DTED     | Data terminal equipment             |
| DTMF     | Dual-tone multiple frequency        |
| IDN      | Integrated digital network          |
| ISDN     | Integrated Services Digital Network |
| ISUP     | ISDN user part                      |
| LE       | Local exchange                      |
| NT       | Network termination                 |
| PABX     | Private Automatic Branch Exchange   |
| PSTN     | Public switched telephone network   |
| SS No. 7 | Signalling System No. 7             |
| TE       | Terminal equipment                  |
| TA       | Terminal adaptor                    |
| TUP      | Telephone user part.                |

**4 Interworking configuration and network characteristics****4.1 Interworking configurations**

See Figure 1

**Documents**

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**Recommendation I.530 (03/93)****1**