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STANDARDIZATION SECTOR
OF ITU

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SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATION

Interworking between networks – General

**General arrangements for interworking between
public data networks providing frame relay data
transmission services and Integrated Services
Digital Networks (ISDNs) for the provision of
data transmission services**

ITU-T Recommendation X.328

(Previously CCITT Recommendation)

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DATA NETWORKS AND OPEN SYSTEM COMMUNICATION

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For further details, please refer to ITU-T List of Recommendations.

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 X.328 was prepared by ITU-T Study Group 7 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 5th of October 1996.

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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SUMMARY

This Recommendation defines general arrangements for the interworking between PDNs providing FRDTS and ISDNs for the provision of data transmission services. These arrangements are applicable only to the interworking involving transmission capabilities and not to interworking involving communication capabilities as described in Recommendation X.300.

Recommendation X.328

GENERAL ARRANGEMENTS FOR INTERWORKING BETWEEN PUBLIC DATA NETWORKS PROVIDING FRAME RELAY DATA TRANSMISSION SERVICES AND INTEGRATED SERVICES DIGITAL NETWORKS (ISDNs) FOR THE PROVISION OF DATA TRANSMISSION SERVICES

(Geneva, 1996)

1 Scope and field of operation

This Recommendation is one of a set of Recommendations produced to facilitate considerations of interworking between networks. It is based on Recommendation X.300, which defines the general principles for interworking between public networks, and between public networks and other networks for the provision of data transmission services. Recommendation X.300 indicates in particular how collections of physical equipment can be represented as "subnetworks" for consideration in interworking situation.

This Recommendation describes the interworking arrangements between Integrated Services Digital Networks (ISDNs) and Public Data Networks (PDNs) providing Frame Relay Data Transmission Services (FRDTS) for the provision of data transmission services. These arrangements are applicable only to the interworking involving transmission capabilities, and not to interworking involving communication capabilities as described in Recommendation X.300.

2 References

The following 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.

- CCITT Recommendation E.164 (1991), *Numbering plan for the ISDN era*.
- CCITT Recommendation I.230 (1988), *Definition of bearer service categories*.
- CCITT Recommendation I.233.1 (1991), *Frame mode bearer services: ISDN frame relaying bearer service*.
- ITU-T Recommendation I.372 (1993), *Frame relaying bearer service network-to-network interface requirements*.
- ITU-T Recommendation I.500 (1993), *General Structure of the ISDN Interworking Recommendations*.
- ITU-T Recommendation I.530 (1993), *Network interworking between an ISDN and a Public Switched Telephone Network (PSTN)*.
- ITU-T Recommendation I.555 (1993), *Frame relaying bearer service interworking*.
- CCITT Recommendation Q.922 (1992), *ISDN data link layer specification for frame mode bearer services*.
- ITU-T Recommendation Q.931 (1993), *ISDN user-network interface layer 3 specification for basic call control*.
- ITU-T Recommendation Q.933 (1995), *Integrated Services Digital Network (ISDN) Digital Subscriber Signalling System No. 1 (DSS 1) – Signalling specifications for frame mode switched and permanent virtual connection control and status monitoring*.
- ITU-T Recommendation X.1 (1996), *International user classes of service in, and categories of access to, public data networks and Integrated Services Digital Networks (ISDNs)*.



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Recommendation X.328 (10/96)

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