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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17153-2011

Replacing GB/T 17153-1997

**General principles for interworking between public networks
and between public networks and other networks for the
provision of data transmission services**

公用网之间以及公用网和提供数据传输业务的其他网之间互通的一般原则

(English Translation)

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Foreword

This standard is based on GB/T 1.1-2009 drafting rules.

And interworking between public networks and other networks providing data transmission services between the present standard replaces GB/T 17153-1997 "public network the general principle. " this standard and GB/T 17153-1997 compared to the main changes are as follows.

--- The standard Chapter 0 change to the "Introduction" section.

- The full text of the standard is described by CCITT to ITU-T.
- Full text of all the ITU-T reference documents are the number with "ITU-T".
- Amend Chapter 2, titled "Normative references", modify the introductory phrase.
- Added to complete in the third chapter in English.
- Join with Frame Relay related content throughout the text, as follows.
 - a) 1 is added to the relevant part FRDTS (frame relay data transmission service);
 - b) adding a frame relay data transmission services at 3.2 in Chapter 3;
 - c) an increase of 4.4 in Chapter 4, joined the Frame Relay public data network;
 - d) In Chapter 4 4.5.2 added "c) frame relay data transmission services";
 - e) increasing the entry "FRPDN" and "ISDN (fr)" in Chapter 5 5.4.2 Table 5;
 - f) Increasing the frame mode in 7.3.1 are described in Chapter 7 and exchange information, e term) after its entry is added;
 - g) Revised Figure 31 in Chapter 7, joined the FR-related content;
 - h) was added in 7.3.2 in Chapter 7 of the increase in frame mode description and exchange information, d item) item is added and after.
- On 7.1 Table 8 modify, add sub-row/column "invitation FR bearer" in ISDN row/column, adding "FRDTS" column in PSPDN column CPSDN row removed X.82, ISDN lines three sons CSPDN columns are added to X.321, in Three sons ISDN line FRDTS columns are added X.328, ISDN columns ISDN lines added X.320.

This standard uses the translation method is equivalent to using ITU-TX.300.1996 between "public network and public network and provide data transmission services General principles of interworking between other networks "(in English).

The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

The standard by the China Communications Standards Association.

This standard was drafted. the Ministry of Industry and Information Technology and Telecommunications Research Institute, Shanghai Bell Co., Ltd.

Introduction

Rapid advances in data transmission services has led to the development of a large number of international standards in this field. With the overall complexity of these criteria Growing, they produced a rationalization of the common requirements, so that between these standards to obtain a coordinated contact.

Data transmission services and user facilities can provide various types of public networks, e.g., public data network (PDN) and the Integrated Services Digital Network (ISDN) (see also ITU-TI.500 and I.510). As a result, it is possible to request that these network interconnection to a number of online Data terminal equipment (DTE) DTE can be another way to communicate with the same unified web, or communicating with another of the same type of DTE online, or DTE to communicate with a different type of network.

In various signaling interworking between networks of different types can belong to as ITU-TX.70, ITU-TX.71, ITU-TX.75 etc.

Those of the type specified, or as specified in ITU-TX.61 common channel signaling that type.

Utilities can exchange network on the internetwork signaling interface, especially among the network included therein. These networks can Utilities in the various types of communication networks for processing.

In addition, since a part of ITU-TX.200 (ITU-T applications OSI Reference Model) scope of application is by encouraging real Now compatible communication performance, so that different users communicate with each other, it is expected that such reference model is the future of product design in the user terminal Pole use.

Based on the definition of the reference model, a main function of the network layer is to network between the various service users (in a variety of end systems Inside) to establish a network connection. This may involve different types of networks in series.

Therefore, the configuration and protocol between the PDN and other public network signaling gateway should be on a network to be completed by the connection, or by Provide operational data transmission services to users on several series connection to the network, telematic services and the OSI connection mode network service Ability of services.

Note: This does not imply any requirement to have a separate public network to realize the full mechanism of the OSI connection-mode network service related.

ITU-TX.300 belong interworking ITU-T Recommendation series. Figure 1 shows the various recommendations summarize the relevant exchange, divide them into three main category.

- a) general features of interworking;
- b) a description of each interworking case;
- c) inter-network signaling interface description.

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And public networks and between public networks providing data transmission General principles of interworking between other network services

1 Scope

This standard specifies the general principles of interworking between two or more networks.

This standard applies to.

--- To provide data transmission services to define principles and detailed interworking of different network configuration;

--- Under normal circumstances specified in the network between the various elements of the user interface, signaling systems between switches and other network functions necessary Interactions to support data transmission services, telematic services and support the OSI network connection at the appropriate forum Network-related functions and services;

Note: support like in the ISO/IEC 8348/Amd.1 defined for OSI connectionless mode network service for further study.

--- Defined as data transmission services principles of international user facilities and network utilities internationally.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 11589 public data networks and integrated services digital network (ISDN) and international user access service class types (GB/T 11589-2011, ITU-TX.1.2000, IDT)
GB/T 11590 public data networks and ISDN network of international data transmission services and optional user facilities (GB/T 11590-2011, ITU-TX.2.2000, IDT) GB/T 11592 public data networks start/stop transmission services on the data terminal equipment (DTE) and data circuit-terminating equipment Interface (DCE) between (GB/T 11592-2011, ITU-TX.20, IDT) Data terminal equipment GB/T 11593 for synchronous operation on public data networks (DTE) and data circuit-terminating access equipment (DCE) between Mouth (GB/T 11593-2001, ITU-TX.21.1992, IDT) GB/T 11596 start-stop mode data terminal into the country's public data network packet assembly and disassembly facility (PAD) in the DTE/DCE between Interface (GB/T 11596-1999, ITU-TX.28.1997, IDT) GB/T 11599 and synchronous V-series modem interface, data terminal equipment (DTE) on public data networks usage (GB/T 11599-2009, ITU-TX.21bis. 1988, IDT) GB/T 11600 and asynchronous duplex V-series modem interface, data terminal equipment (DTE) on public data networks usage (GB/T 11600-2009, ITU-TX.20bis. 1988, IDT) GB/T 17801 via PSTN or ISDN circuit-switched or packet-switched public data network access common data According to network packet data terminal equipment (DTE) and data circuit-terminating