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PUBLIC DATA NETWORKS

TRANSMISSION, SIGNALLING AND SWITCHING

FUNDAMENTAL PARAMETERS OF A MULTIPLEXING SCHEME FOR THE INTERNATIONAL INTERFACE BETWEEN SYNCHRONOUS DATA NETWORKS

ITU-T Recommendation X.50

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation X.50 was published in Fascicle VIII.3 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

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 X.50

FUNDAMENTAL PARAMETERS OF A MULTIPLEXING SCHEME FOR THE INTERNATIONAL INTERFACE BETWEEN SYNCHRONOUS DATA NETWORKS

(Geneva, 1972; amended at Geneva, 1976 and 1980)

The establishment in various countries of public synchronous data networks creates a need to standardize a preferred multiplexing scheme to be used on international links between these countries.

The CCITT,

considering

that the resolution of the fundamental parameters of a multiplexing scheme is urgently needed for the interworking of data networks using different envelope structures;

unanimously declares the following view:

1 Division 1

1.1 This Recommendation sets out the fundamental parameters of a multiplexing scheme for interworking of networks that make use of the following structures:

- a) 8-bit envelope (see Explanatory Note 1 below);
- b) four 8-bit envelopes grouping (see Explanatory Note 2 below);
- c) 10-bit envelope (see Explanatory Note 3 below), in the case where at least one of the networks is structured according to a) or b).

1.2 For interworking between two networks both of which utilize the 10-bit envelope structure as identified in § 1.1 c) above, Recommendation X.51 will apply.

1.3 Paragraph 2 of this Recommendation deals with the basic multiplexing parameters which shall be used in any application of this Recommendation.

1.4 Paragraph 3 of this Recommendation, in addition to § 2, applies to the interworking between two networks both of which utilize the 8-bit envelope structure, as identified in § 1.1 a) above.

1.5 Paragraph 4 of this Recommendation, in addition to § 2, applies to the interworking of networks as identified in § 1.1 above in cases other than those described in §§ 1.2 and 1.4 above with due regard to the transit situations.

1.6 The use of the status bit, besides that indicated in this Recommendation, should comply with Recommendations X.21 and X.21 *bis*, together with Recommendation X.71 for connections using decentralized signalling and with Recommendation X.60 for connections using common channel signalling.

2 Division 2

2.1 The multiplex gross bit rate of 64 kbit/s should be standardized for international links and framing information for the channels should be contained within the 64 kbit/s capability.

2.2 For the basic multiplexing of information bearer channels, the following applies:

- i) structures suitable both for handling homogeneous (with respect to bearer rates) mixes of bearer channels and structures suitable for handling heterogeneous mixes of bearer channels are required;