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SERIES Q: SWITCHING AND SIGNALLING

Interworking of signalling systems

INFORMATION ANALYSIS TABLES

Reedition of CCITT Recommendation Q.604 published in the Blue Book, Fascicle VI.6 (1988)

NOTES

1 CCITT Recommendation Q.604 was published in Fascicle VI.6 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.

4 INFORMATION ANALYSIS TABLES

Information analysis tables are provided for each signalling system. These tables list the information elements of the forward and backward signals for CCITT signalling systems.

Tables A-4 to A-8 show the forward signals relevant to interworking of Signalling Systems No. 4, No. 5, No. 6, No. 7, R1 and R2, split up into their individual information elements. In these tables, comparisons are made between the contents of the signals used by the different systems.

Tables A-9 to A-13 show the backward signals relevant to interworking of Signalling Systems No. 4, No. 5, No. 6, No. 7, R1 and R2, split up into their individual information elements. In the rows headed "corresponds to signal No. . . . of Signalling System . . ." the signals are entered together with their corresponding signal, if any, in the different systems.

The tables include an indication to the other signalling systems where:

– equivalent signals have the same information content,

– equivalent signals are not provided,

– equivalent signals contain less or substitute information,

– equivalent signals contain additional or changed information.

4.1 *Information content of the signals*

The individual signals are assigned specific information so as to enable messages to be transmitted. The meaning of these signals can be seen from the specifications of CCITT Signalling Systems.

With regard to their information content, a basic distinction can be made between:

– signals containing a single information element, and

– signals containing several information elements.

An information element is understood to be the smallest indivisible component of information (within a signal) considered in this Recommendation.

For the interworking of different signalling systems, the information content of the signals to be translated is of great importance. In the case where two signalling systems interwork, it is possible to assign all signals used in the CCITT Signalling Systems to one of the following categories:

a) signals coinciding in all information elements;

b) signals coinciding at least in one, but not in all information elements;

c) signals coinciding in no information element at all.

4.2 *Consequences*

If signals with identical information content are present in the signalling systems, the interworking condition is fulfilled. No modification of information occurs (refer to a) of § 4.1 above).

If the signal meanings do not agree in all information elements, those signals must be allocated to one another where maximum agreement is to be achieved, so as to minimize the loss or addition of information (refer to b) of § 4.1 above).

If a signal possesses information elements which are not present in the signals of the other signalling system with which interworking should take place, the information concerned cannot be transmitted and the appropriate performance feature cannot be utilized (refer to c) of § 4.1 above).

In a few cases special procedures have to be laid down if the status of the connection does not permit transmission of the intended interworking signal. If conversion is not possible with certain backward signals, it may be necessary to apply a corresponding tone (see Recommendation Q.35).

In addition, there are cases in which the information content of several signals of one of the signalling systems has to be converted so as to obtain one signal of the other signalling system and vice versa.

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