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SERIES M: MAINTENANCE OF INTERNATIONAL TELEGRAPH, PHOTOTELEGRAPH AND LEASED CIRCUITS

MAINTENANCE OF THE INTERNATIONAL PUBLIC TELEPHONE NETWORK

MAINTENANCE OF MARITIME SATELLITE AND DATA TRANSMISSION SYSTEMS

International public telephone network maintenance

ASSESSMENT OF THE PERFORMANCE OF THE INTERNATIONAL TELEPHONE NETWORK

Reedition of CCITT Recommendation M.1230 published in the Blue Book, Fascicle IV.2 (1988)

NOTES

1 CCITT Recommendation M.1230 was published in Fascicle IV.2 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.

Recommendation M.1230

ASSESSMENT OF THE PERFORMANCE OF THE INTERNATIONAL TELEPHONE NETWORK

1 General

The quality of the international automatic and semiautomatic telephone service (being studied by Study Group II) as experienced by customers, is of great importance to Administrations. The quality of service experienced by customers is determined by a number of factors, including some which are not the direct responsibility of maintenance personnel, for example:

- customer behaviour,
- planning and provision of the network and whether sufficient circuits and switching equipment exist to meet the call attempts made by customers,
- the degree to which network management is employed.

However, it is recognized that maintenance activities and the maintenance organization can have a considerable influence on the performance of the international telephone network and, therefore, on the quality of service experienced by customers. In view of this, the assessment of network performance is necessary for the efficient maintenance of the international telephone network.

From the point of view of maintenance, the assessment of international network performance involves a measurement of the capability of the overall network (i.e. international section plus two national sections) to establish a switched connection of good transmission quality whenever required. Such a connection may result from customer calls or test calls.

2 Methods of network performance assessment

To meet the needs of network maintenance, information on the performance of the international telephone network can be obtained from a number of sources, for example, from subscriber-to-subscriber test calls as detailed in Recommendation M.1235, but also from service quality observations as detailed in Recommendations E.420 [1][1)], E.421 [2], E.422 [3] and E.423 [4], and from monitoring of live traffic.[2)]

The nature of information obtained (for example verification of call completion rate, transmission quality, influence of international and national sections) will depend on the method of network performance assessment employed.

While there is a recognized need to continuously assess the performance of the international telephone network, the actual method by which this is achieved depends upon the arrangements within and between Administrations and on the switching technology employed. The choice of method is left to individual Administrations, to decide on the basis of their own particular circumstances.

References

[1] CCITT Recommendation *Checking the quality of the international telephone service*, Vol. II, Rec. E.420.

[2] CCITT Recommendation *Service quality observations*, Vol. II, Rec. E.421.

[3] CCITT Recommendation *Observations on outgoing telephone calls for Quality of Service*, Vol. II, Rec. E.422.

[4] CCITT Recommendation *Observations on traffic set up by operators*, Vol. II, Rec. E.423.

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1) Recommendation E.420 in its *general considerations* lists the main sources of information on Quality of Service as observed by the customer, and defines the principal methods for measuring Quality of Service. Annex A to this Recommendation illustrates an approach to integrating service quality observations into an overall problem-investigating process.

2) Monitoring of live traffic is under study by Study Group II in connection with assessing the Quality of Service experienced by customers, and by Study Group IV for network maintenance purposes.

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