INTERNATIONAL TELECOMMUNICATION UNION

ITU-T M.720

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

MAINTENANCE:
INTERNATIONAL TELEPHONE CIRCUITS

NETWORK ANALYSIS POINT

ITU-T Recommendation M.720

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation M.720 was published in Fascicle IV.1 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.720

NETWORK ANALYSIS POINT

1 Definition of network analysis point

The network analysis point is an element within the general maintenance organization for the international automatic and semi-automatic telephone service associated with one or more international centres.

It receives information concerning service quality and faults not associated with specific circuits.

It analyses all relevant information to investigate the problems involved. The general considerations for checking the quality of the international telephone service are given in Recommendation E.420 [1].

The network analysis point may request the fault report point (network) to initiate investigatory and/or remedial actions in one or more maintenance centres in the home country or via a fault report point (network) in another country. It acts as a single point of contact for general enquiries concerning the day-to-day maintenance of the international telephone network, as may be made by the maintenance organizations of other Administrations.

2 Responsibilities and functions

The network analysis point is responsible for the following set of functions:

2.1 Analysing all fault reports received from the fault report point (network).

2.2 Collecting and analysing all information necessary for the evaluation and supervision of the quality of the international service and the diagnosis and localization of faults reported to it. The following items are recommended for consideration:

a) Call failure information derived from operator and subscriber reports.

b) Traffic service observations for preparation of Tables 1/E.422 [2] and 1/E.423 [3].

c) Traffic service observations undertaken for specific purposes.

d) Results of manual and automatic test calls.

e) Reports from fault report points (network) of other Administrations and also from maintenance units of its own Administration.

f) Summarized information from group reference pilots.

g) Information from automatic supervision of switching equipment.

h) Information that all circuits on a route are busy.

i) Summarized information from traffic monitoring and accounting equipment.

j) Information derived from circuit and circuit group surveillance equipment.

k) Periodic data from traffic measuring equipment, e.g. loading in erlangs, percentage occupancy and overflow intensities.

2.3 Analysing summaries of transmission measurements that may be received from maintenance units of its own Administration.

2.4 Receiving information concerning major breakdowns affecting the international telephone service and evaluating their effect with respect to network condition.

2.5 Receiving reports of all events likely to affect the international telephone service.

2.6 Analysing out-of-service times and cooperating with the maintenance units in their efforts to reduce such times to a minimum.

2.7 Making optimum use of statistical methods (e.g. trouble pattern techniques) for determining the probable location of failure points.

2.8 Cooperation with the network analysis points of other countries in order to coodinate action in case of service defects existing in the part of the network depending on those points.

2.9 Employing information concerning routing, signalling, switching, and transmission systems in its country and other countries to help locate and clear impediments to good service.

2.10 Advising the fault report point (network) of the results of its analyses as necessary.

2.11 Receiving general enquiries concerning the maintenance of the international telephone network from other Administrations, and answering such enquiries or undertaking any necessary analyses or investigations.

3 Facilities

The network analysis point should be provided with the following facilities:

3.1 Appropriate communication facilities in order to assume its responsibilities.

3.2 Access to information from the internal and, where provided, external supervisory and statistical functions of SPC-exchanges, for instance, by means of data terminals.

3.3 Means to receive and process information associated with the functions listed above.

3.4 Means of storing received and processed information.

3.5 Means of accessing stored information.

References

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

[2] CCITT Recommendation *Observations on international outgoing telephone calls for quality of service*, Vol. II, Table 1/E.422 of Rec. E.422.

[3] CCITT Recommendation *Observations on traffic set up by operators*, Vol. II, Table 1/E.423 of Rec. E.423.