INTERNATIONAL TELECOMMUNICATION UNION

ITU-T M.719

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MAINTENANCE:

INTERNATIONAL TELEPHONE CIRCUITS

TESTING POINT (SWITCHING AND INTERREGISTER SIGNALLING)

ITU-T Recommendation M.719

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation M.719 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.719

TESTING POINT (SWITCHING AND INTERREGISTER SIGNALLING)

1 Definition of testing point (switching and interregister signalling)

The testing point (switching and interregister signalling) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre. It carries out tests concerned with switching and interregister signalling functions associated with international circuits, whether provided by wholly analogue transmission and switching systems or by a mixture of analogue and digital systems[1)].

Administrations may organize testing of equipment and functions for common channel signalling systems either at the testing point or at a separate point. Attention is drawn to Recommendation M.762 regarding common channel signalling system maintenance.

2 Responsibilities and functions

The testing point (switching and interregister signalling) is responsible for the following set of functions:

2.1 Carrying out switching and interregister signalling tests in connection with the setting-up and lining-up of international circuits.

2.2 Taking any necessary action as a result of outputs from supervisory and testing functions of SPC exchanges.

2.3 Ensuring that new circuits can be accessed via the switching equipment, and that auxiliary equipment (e.g. accounting equipment, ATME) is correctly associated.

2.4 Carrying out routine tests of the switching and interregister signalling entities.

2.5 Diagnostic testing to confirm existence and location of switching and interregister signalling problems indicated by monitorial equipment or fault reports.

2.6 Passing details of the locations of faults to the appropriate maintenance units for clearance and cooperating with them as necessary.

2.7 Advising the fault report point (network) and the network management (implementation and control point) (see Recommendation E.413 [1]) of any problems which may affect service on a route or routes and the action taken.

2.8 Advising the circuit control station of any difficulties detected by routine tests or monitorial means which affect individual circuits.

2.9 Cooperating with staff in other international centres as required.

3 Facilities

The testing point (switching and interregister signalling) should be provided with the following facilities:

3.1 Ability to test common equipment elements for performance and/or availability.

3.2 Access to information from internal or external supervisory testing functions of SPC exchanges.

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1) In practice, at digital international exchanges, a line access point at circuit level may not exist when the exchange is interfaced by primary (or higher order) digital paths. Thus, all signalling testing may need to be carried out from one location, generally the testing point) switching and interregister signalling). This would include line signalling aspects, if any.

3.3 Means for assessing switching capability and interregister signalling in accordance with Annex A.

3.4 Communication with other maintenance entities as appropriate.

3.5 Access to maintenance access lines as described in Recommendation O.11 [2].

3.6 For common channel signalling systems, access to information on signalling link status and signalling routing, and from signalling performance monitoring equipment.

ANNEX A

(to Recommendation M.719)

Measuring and testing equipment (signalling and switching)

The basic types of equipment needed by a testing point (switching and interregister signalling) are as follows:

1) equipment for signalling tests;

2) equipment for switching tests;

3) signalling encoders consisting of a signal generator with facilities to vary frequency, amplitude and timing within defined limits, in conjunction with a test call generator, so that test calls using nominal or marginal signals can be generated;

4) signal decoders, i.e. a device capable of responding to incoming signals such as to indicate whether or not the received signals are within limits;

5) signal displays, i.e. a device capable of displaying the signals, line or register, transmitted or received by a circuit. The display should preferably be in digital form;

6) signal timers, i.e. a device capable of measuring the length of signals and the interval between signals (line and register) transmitted or received over a circuit;

7) signal level measuring device;

8) signal distortion measuring device;

9) signal recording device, for permanent records of line and register signals.

Further details of equipment for testing switching and interregister signalling are given in the relevant Recommendations on the different signalling systems.

References

[1] CCITT Recommendation *International network management-Planning*, Vol. II, Rec. E.413.

[2] CCITT Recommendation *Maintenance access lines*, Vol. IV, Rec. O.11.