ITU

INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

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TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

SPECIFICATIONS OF SIGNALLING SYSTEM R2

SIGNALLING PROCEDURES

MISCELLANEOUS PROCEDURES

ITU-T Recommendation Q.480

(Extract from the *Blue Book*)

NOTES

1   ITU-T Recommendation Q.480 was published in Fascicle VI.4 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 Q.480

5.8 MISCELLANEOUS PROCEDURES

5.8.1   *Nature of circuit procedure for international working*

An incoming R2 register in an international transit exchange or in the country of destination can elicit the nature of the circuit as soon as at least one forward signal has been received from an outgoing register.

The incoming R2 register requests nature of circuit by sending the backward signal A-13. The outgoing R2 register, if capable, sends the nature of the circuit indicator signal I-13 or I-14 in reply.

Signal A-13 can be sent after any forward signal (Groups I and II) and particularly after any address digit, but it can only be sent prior to any transmission of signal A-3.

If the outgoing R2 register does not have the capability of providing the nature of circuit, signal I-12 (request not accepted) is sent in reply to signal A-13. The incoming R2 register will then ask for the following address digit by sending signal A-1, for example. If the outgoing R2 register receives signal A-13 again it will send signal I-12 again.

For existing equipment if the outgoing international R2 register does not have the capability of providing the nature of the circuit, but is capable of sending identification information as defined in the *Yellow Book,* the procedure starts with the first digit of the country code.

5.8.2   *Identification procedure for national working*

System R2 makes provision for the signalling necessary to identify the calling subscriber's line: for example, by repetition of signal A-5 or by using one of signals A-9 or A-10. For the time being this procedure is restricted to national working only; outgoing international R2 registers prevent its use over international links (see § 5.8.4). The outgoing R2 register at the incoming end of an international satellite link must similarly prevent its use via that link.

5.8.3   *Processing of Group II signals reserved for national use*

The Group II signals reserved for national use must be converted in the outgoing international R2 register to Group II signals used for international working.

The conversion must be carried out as follows:

  II-1 must be converted to II-7

  II-2 must be converted to II-7 or II-9

  II-3 must be converted to II-7

  II-4 must be converted to II-7

  II-5 must be converted to II-7 or II-10

  II-6 must be converted to II-8

  II-11 to II-15 must be converted to II-7.

Since there are no Recommendations yet regarding handling of priority calls in automatic international working, conversion of signal II-2 to signal II-9 must be the subject of bilateral agreement.

If an incoming R2 register is situated in a national exchange and because signals II-7 to II-10 are not used for national working, then analysis of Group II signals enables a distinction to be made between nationally and internationally originated calls.

If an incoming R2 register knows a call is of international origin and if a Group II signal reserved for national use is received, signal A-4 or B-4 (congestion on the national network) should be sent in acknowledgement. This procedure cannot be applied if an incoming R2 register in the destination country is employed for national and international working and is not able to detect the origin of the call.

5.8.4   *Procedures to be followed by outgoing international R2 registers on receipt of particular backward signals*

An outgoing international R2 register must send the appropriate calling party's category signal (II-7 to II-10) in reply to signals A-3 and A-5.

On recognition of one of the signals A-9 or A-10 an outgoing international R2 register sends signal I-12 (request not accepted) in response. Therefore, national incoming R2 registers using these signals should be equipped to receive signal I-12.

The incoming national R2 register receiving I-12 has to determine the appropriate international standardized signal to be sent in response to signal I-12 and which substitutes for signals A-9 or A-10.

In reply to signal A-14 an outgoing international R2 register sends:

-    signal I-14 when an incoming half-echo suppressor is required;

-    the next address digit (a signal I-1 to I-10) when no incoming half-echo suppressor is required.

If an outgoing international R2 register receives a backward signal requesting an impossibility in the logical procedure (e.g. receipt of signal A-8 after sending the country code indicator), the call shall be released.