INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

Annex A
Q.400-Q.490

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

SPECIFICATIONS OF SIGNALLING SYSTEM R2

SPECIFICATIONS OF SIGNALLING SYSTEM R2 - PROVISION OF A FORWARD - TRANSFER SIGNALLING FACILITY

Annex A to ITU-T Recs. Q.400 to Q.490

(Extract from the *Blue Book*)

NOTES

1 Annex A to Signalling System R2 Specifications (ITU-T Recs. Q.400 to Q.490) 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.

ANNEX A

(to Signalling System R2 Specifications)

(see Recommendations Q.400 and Q.441)

Provision of a forward-transfer signalling facility

A.1 *General*

The System R2 does not provide a forward-transfer line signal. However for certain relations it may be decided by bilateral or multilateral agreement to introduce the forward-transfer signalling facility into System R2.

One possible procedure that has been adopted for use within Europe, is to use the PYY in-band signal of System No. 4. This solution is only economical in regions where the facility is needed for a small proportion of the calls.

For international working the method as described below may be followed.

Note - The method given in this Annex may also be adopted in national networks where the forward-transfer facility is considered necessary for trunk offering and recalling operators. However, care must be taken to see that the transmission limits applying to the forward-transfer signal specified are observed.

A.2 *Method recommended for introducing the forward-transfer signalling facility into System R2*

Forward-transfer signalling will be provided by means of special equipment which uses in-band signalling and which is switched only on to those connections which may require this facility. The amount of special equipment necessary can, accordingly, be reduced to a minimum and adapted, in a flexible manner, to actual needs. The in-band signal constituting the forward-transfer signal is sent end-to-end between the outgoing and incoming international exchanges. When the special equipment receives the forward-transfer signal, it performs the necessary operations at the incoming exchange.

A.2.1 *Access to the special equipment in an incoming international exchange*

In an incoming international exchange access to the special equipment for forward-transfer signalling can be determined by the use of the following indicators:

1) Special marking of incoming routes on which forward-transfer signalling is used.

2) Language digit indicating semi-automatic traffic.

3) Calls for code 11 or code 12 operator.

4) Special interregister signalling sequence in which the incoming exchange sends signal A-5, *send calling party's category.* If the forward-transfer signalling facility is required the outgoing R2 register will respond to this by sending the signal II-10. This signal indicates an operator-initiated call on which special equipment for forward-transfer signalling is needed.

The use of these indicators will depend on the amount of traffic for which forward-transfer signalling is employed. In some cases one or two of the indicators will be utilized. In others, combinations of all will be used to reduce to a minimum the amount of special equipment required.

A.2.2 *In-band forward-transfer signalling*

In System R2 the in-band forward-transfer signal is the same as that used in System No. 4. For the definition of this signal see Recommendation Q.120, § 1.12. The signal is the signal PYY defined in Recommendation Q.121, § 2.3. The forward-transfer signal is sent in accordance with Recommendations Q.122 and Q.124.

The signal receiver and the splitting arrangements to be incorporated in the special equipment at the incoming international exchange are in accordance with Recommendations Q.123 and Q.124.

Provided it creates no difficulty for incoming national network signalling, no splitting need be effected at the receiving end and the caller will then hear the entire signal PYY.