

INTERNATIONAL TELECOMMUNICATION UNION



TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU Q.263

# SPECIFICATIONS OF SIGNALLING SYSTEM No. 6

# SIGNALLING PROCEDURES

# DOUBLE SEIZING WITH BOTH - WAY OPERATION

# **ITU-T** Recommendation Q.263

(Extract from the Blue Book)

# NOTES

1 ITU-T Recommendation Q.263 was published in Fascicle VI.3 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.

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## 4.3 DOUBLE SEIZING WITH BOTH-WAY OPERATION

### 4.3.1 *Double seizing*

Since System No. 6 circuits have the capability of both-way operation, it is possible that the two exchanges will attempt to seize the same circuit at approximately the same time.

#### 4.3.2 Unguarded interval

Considering that with Signalling System No. 6:

- a) circuit propagation time may be relatively long,
- b) the initial address message may consist of up to six signal units,
- c) there may be a significant queueing delay, and
- d) quasi-associated operation may add extra cross-office delay(s),

the unguarded interval during which double seizing can occur may be relatively long in some instances. The exchange must therefore detect double seizing and take action as defined in § 4.3.5.

#### 4.3.3 Detection of double seizing

A double seizure is detected by an exchange from the fact that it receives an initial address message for a circuit for which it has sent an initial address message. For detection of a double seizure when out of sequence messages are received, see *Reasonableness check tables*, Annex B to these Specifications.

## 4.3.4 *Preventive action*

Double seizing is minimized by the use of an opposite order of selection at each terminal exchange of a bothway circuit group. It is necessary to use this method of selection in cases where System No. 6 uses a voice-frequency link with long propagation time.

#### 4.3.5 Action to be taken on detection of double seizing

It is expected that each exchange will control one-half of the circuits in a both-way circuit group. On detection of a double seizure, the call being processed by the control exchange<sup>1)</sup> for that circuit will be completed and the received initial address message will be disregarded. Under these conditions, the call being processed by the control exchange will be allowed to complete although the continuity of the circuit may have been checked in the direction from non-control to control only. The call being processed by the non-control exchange will be backed off, switches released, the continuity check transceiver removed, and the check loop connected unless or until a continuity signal has been received from the control exchange. A clear-forward signal will not be sent. The non-control exchange will make an automatic repeat attempt on the same or on an alternative route.

<sup>1)</sup> For the purpose of resolution of double seizing on both-way circuits, a suitable method is that one exchange as determined by bilateral agreement will control *all* circuits with odd-numbered (binary numbers) labels and the other exchange those with even-numbered labels. This designation of control may also be used for maintenance control purposes (see Recommendation M.80).