



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**E.300**

**TELEPHONE NETWORK AND ISDN**

**OPERATION, NUMBERING, ROUTING  
AND MOBILE SERVICE**

---

**SPECIAL USES OF CIRCUITS NORMALLY  
EMPLOYED FOR AUTOMATIC TELEPHONE  
TRAFFIC**

**ITU-T Recommendation E.300**

(Extract from the *Blue Book*)

---

## NOTES

1 ITU-T Recommendation E.300 was published in Fascicle II.2 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 E.300

### SPECIAL USES OF CIRCUITS NORMALLY EMPLOYED FOR AUTOMATIC TELEPHONE TRAFFIC

The CCITT

*considering*

- (a) that special services exist which occasionally require the provision of telephone circuits for uses such as:
  - reserve circuits for VF telegraphy,
  - circuits for phototelegraph transmissions,
  - control circuits for programme transmissions,
  - leased circuits (other than permanent full-time leases);
- (b) that the international telephone service is becoming more and more automatic, and that only a few manual circuits will be kept to form a reserve network;
- (c) that it is therefore necessary to provide automatic circuits for special uses other than telephony;
- (d) that telephone circuits assigned for special uses must, when needed, be made available to the special services as rapidly as possible;
- (e) that it must be guaranteed that, after the circuits have been used for a special purpose, they will be returned to the telephone service without delay;
- (f) that the switching of circuits for special purposes should not disturb the operation of telephone service.

*recommends*

that the following provisions be observed:

- 1** In an international telephone relation, the number of automatic circuits assigned for special purposes should be in reasonable proportion to the total number of circuits, so that their occupation will not hamper the flow of automatic telephone traffic.
- 2** Circuits to be used for special purposes should be passed at the outgoing and incoming ends through transfer panels on which the wanted circuit is disconnected manually from the telephone equipment and connected to the terminal of the special service concerned.

Alternatively, circuits assigned for special uses should be fitted, in the telephone equipment, with a device for automatic switching to the transfer panel of the special service, the operation being commanded by the latter. (This method is preferable because with the first method a telephone call could be interrupted if proper care is not exercised.)
- 3** The switching operations should take place under the control of the outgoing international maintenance centre (IMC). The IMC may delay or limit the provision of telephone circuits for other purposes, particularly when restrictions are imposed on the telephone traffic.
- 4** The following arrangements should be followed when special connections are set up and cleared:
  - a) The occupation of a telephone circuit for a special purpose should be marked on the transfer panel at the outgoing end; conversely, if such a circuit is in fact engaged, it must be marked busy in the telephone switching equipment.
  - b) A circuit assigned to a special use may not be taken for the service in question if a telephone call is in progress. However, arrangements should be made to ensure that the circuit cannot be engaged by another telephone call when the call is over (*preliminary blocking*).
  - c) The circuits in a group of telephone circuits that are reserved for special uses should be last-choice circuits, to reduce the risk of finding them busy when required.

- d) When a circuit is free, the supervisor in charge of the transfer panel at the outgoing end takes the necessary steps to withdraw the circuit from the telephone service. The responsible supervisor at the incoming end is then asked to make the necessary operations if the telephone equipment is not disconnectable by remote control.
- e) While awaiting notification from the incoming end of completion of transfer to the special service, the outgoing supervisor tests the connection before making it available for its new functions.
- f) The same procedure is followed at the outgoing end when the circuit is restored to the telephone service. To prevent a subsequent telephone call from being ineffective, care must be taken to clear the special call at the incoming end first.

**5** Bookings of leased circuits or order lines for programme transmissions are arranged in advance and are not urgent. The delays required by the connection of two circuits in tandem when a connection is operated entirely in automatic transit give rise to no particular difficulties.

**6** Where telegraph systems are concerned, the primary requirement is rapid replacement of the faulty VF bearer circuit. In view of the delay which would occur in employing two separate links to form a reserve circuit, it appears that in relations in which automatic transit switching is the normal method of operation, a direct circuit should be retained.

Such a direct circuit could be manual or automatic. An automatic circuit would normally be used to carry the telephone traffic. It should be noted that this will then be used as a first-choice route and will thus carry the heaviest load. The risk of finding it busy, when needed, will therefore be at its maximum.

In such circumstances, preliminary blocking of the wanted circuit should be effected (see § 4b) above). As long as the equipment is unable to perform this operation it will be preferable to keep one manual direct circuit.

**7** The delay in establishing phototelegraph calls via an international phototelegraph position transit centre (transit IPP) is not so critical. In this case, application of Recommendation E.320 will speed up the placing of two circuits end to end at the transit centre to establish the connection, and it will not be necessary to keep direct circuits in relations where automatic switching is the method normally used for telephone calls in transit.

**8** The same circuit should not be assigned to more than one special service, so that the various transfer panels for such services may be placed separate from one another should the terminal country so wish.