



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

F.64

OPERATIONS AND QUALITY OF SERVICE TELEGRAPH SERVICES

DETERMINATION OF THE NUMBER OF INTERNATIONAL TELEX CIRCUITS REQUIRED TO CARRY A GIVEN VOLUME OF TRAFFIC

ITU-T Recommendation F.64

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation F.64 was published in Fascicle II.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.

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Recommendation F.64

DETERMINATION OF THE NUMBER OF INTERNATIONAL TELEX CIRCUITS REQUIRED TO CARRY A GIVEN VOLUME OF TRAFFIC

The CCITT,

considering

(a) that it is essential to provide an adequate number of circuits between two telex networks in order to provide the rapid service stipulated in Recommendation F.60;

(b) that the use of tables for the determination of the number of circuits as a function of the traffic to be dealt with during the busy hour is an established practice in all Administrations, and is a convenient means of indicating a standard;

(c) that international telex circuits may be selected either at manual positions, or via automatic switching equipment, particularly where subscriber-to-subscriber selection is employed between two networks;

unanimously declares

(1) that Administrations should use Tables 1/F.64 or 2/F.64 below, according to the system of selection employed (i.e. manual selection or automatic selection) in the international service;

(2) Administrations should aim for full availability of circuits on intercontinental and ARQ radio routes operated with signalling in accordance with Recommendations U.1, U.11, U.12 and U.20. Where an Administration is unable to provide the full availability, it should provide an availability to achieve not less than 90% of the full availability capacity relative to the number of circuits on the route at a grade of service of one in 50.

1 Introduction

1.1 Table 1/F.64 shows values for manual traffic carried. If for the purpose of design (as distinct from the maintenance of rapid service) it is desired to obtain values for offered traffic in erlangs, these may be determined by adding the respective values of lost traffic to the figures for carried traffic in Table 1/F.64.

1.2 Table 1/F.64 is directly applicable only to full-availability groups of circuits that are operated either wholly as bothway circuits, or wholly as unidirectional circuits.

1.3 Tables 2/F.64 shows values for traffic offered in the automatic service and is directly applicable to full-availability groups and groups with availabilities between 10 and 50.

Given the traffic offered (A) in erlangs and the availability (K), the number of circuits required to provide a loss probability (B) of 0.02 may be determined from Table 2/F.64. Groups of up to 200 circuits and availabilities of 10, 20, 30, 50 and N circuits (N circuits corresponding to full availability) are covered. The method of applying the table is shown in Figure 1/F.64.

1.4 Where groups of circuits are divided into bothway and unidirectional components, the division and number of circuits in each component will be agreed between Administrations.