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TELEPHONE NETWORK AND ISDN

QUALITY OF SERVICE, NETWORK MANAGEMENT AND TRAFFIC ENGINEERING

CONNECTION INTEGRITY OBJECTIVE FOR INTERNATIONAL TELEPHONE SERVICE

ITU-T Recommendation E.855

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation E.855 was published in Fascicle II.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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Recommendation E.855

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Introduction

This Recommendation is one of a set of closely related Recommendations comprising Recommendations E.810, E.830, E.845, E.850 and E.855 concerned with the accessibility, retainability and integrity of telecommunication services, specially telephone services.

The CCITT.

considering

(a) that users of the telephone service can perceive the speech loss due to transmission interruptions with durations shorter than 10 seconds;

Note – Transmission interruptions with durations longer than or equal to 10 seconds in a conversation phase are not tolerable by telephone users (Annex A). Such transmission interruptions are considered as a premature release of the connection as defined in Recommendation E.850.

(b) that speech loss causing transmission interruptions are caused by a change beyond given limits for a given period of time in one or more parameters, e.g. power level, noise level, signal-to-noise ratio, bit error ratio, etc.;

(c) that the objective should take into account the expectations of the users for quality of voice communications as well as the capabilities of current technologies;

(d) that the objective should take into account the concerns of network planners and system planners, provide useful guidance to each and that it can be used by Administrations in a consistent way to measure transmission interruptions;

(e) that the objective should be in conformity with other Recommendations;

(f) the definition of *interruption* as given in Recommendation E.800,

recommends

1 Definitions

1.1 connection integrity for telephone service

The degree to which an established telephone connection is offered without excessive transmission interruptions.

1.2 mean time between interruptions (MTBI)

The expectation of the time between interruptions. The time between interruptions is the time duration between the end of one interruption and the beginning of the next.

1.3 mean interruption duration (MID)

The expectation of interruption duration.

1.4 transmission interruption

Temporary inability of the user-to-user transmission path to be provided persisting for less than 10 seconds (maximum duration) and more than another given time duration (or minimum duration) characterized by a reduction below a certain threshold in received signal power level. The minimum duration of transmission interruption and the minimum power threshold are for further study. Transmission interruptions caused by changes beyond certain thresholds of other parameters essential to connection integrity e.g. noise level, signal-to-distortion ratio, are for further study.