



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

V.8

(11/2000)

SERIES V: DATA COMMUNICATION OVER THE
TELEPHONE NETWORK

General

Procedures for starting sessions of data transmission over the public switched telephone network

ITU-T Recommendation V.8

(Formerly CCITT Recommendation)

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Procedures for starting sessions of data transmission over the public switched telephone network

Summary

This Recommendation defines signals to be exchanged between DCEs over the PSTN when a session of data transmission needs to be established, but before signals are exchanged which are specific to a particular Recommendation. It provides means to automatically determine the best available operational mode between two DCEs connected via the PSTN, provides a timely indication to Circuit Multiplication Equipments on the V-series modulation to be employed in a new session of data transmission, provides a means to enable a PSTN call to be passed on automatically to an appropriate DCE, and provides signals for interacting with PSTN echo-control equipment.

This Recommendation was revised in 1998 and 1999 to define additional call function types, define procedures for the exchange of non-standard facilities information and add support for PCM modulation modes.

This Recommendation was revised in 2000 to provide support for V.92 features, correct errors in the 1999 version, clarify the use of the prot0 octet, and add clause 10 to address compatibility with future revisions of this Recommendation.

Source

ITU-T Recommendation V.8 was revised by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 17 November 2000.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

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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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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ITU-T Recommendation V.8

Procedures for starting sessions of data transmission over the public switched telephone network

1 Scope

This Recommendation defines signals to be exchanged between DCEs over the PSTN when a session of data transmission needs to be established, but before signals are exchanged which are specific to a particular modem Recommendation.

This Recommendation provides the following features:

- A means to determine automatically, prior to initiation of modem handshake, the best available operational mode between two DCEs connected via the PSTN. Many DCEs can provide operation according to a number of different V-series modem Recommendations.
- A timely indication to Circuit Multiplication Equipments (CMEs) on the V-series modulation to be employed in any new session of data transmission. CMEs in the PSTN will increasingly need to deploy demodulation/remodulation in order to maintain and improve data signalling rates.
- A means to enable a PSTN call to be passed on automatically to an appropriate DCE, with the minimum potential for adversely affecting existing DCEs.
- Signals for interacting with PSTN echo-control equipment, as provided for in ITU-T V.25.

Implementors should note that this Recommendation is designed to be extensible, and care must be taken to ensure compatibility with future revisions of this Recommendation. See clauses 6 and 10.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- ITU-T H.324 (1998), *Terminal for low bit-rate multimedia communication*.
- ITU-T T.30 (1999), *Procedures for document facsimile transmission in the general switched telephone network*.
- ITU-T T.35 (2000), *Procedure for the allocation of ITU-T defined codes for non-standard facilities*.
- ITU-T T.66 (1999), *Facsimile code points for use with Recommendations V.8 and V.8 bis*.
- ITU-T T.101 (1994), *International interworking for videotex services*.
- ITU-T V.2 (1988), *Power levels for data transmission over telephone lines*.
- ITU-T V.17 (1991), *A 2-wire modem for facsimile applications with rates up to 14 400 bit/s*.
- ITU-T V.18 (1998), *Operational and interworking requirements for DCEs operating in the text telephone mode*.
- ITU-T V.21 (1988), *300 bits per second duplex modem standardized for use in the general switched telephone network*.