INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

V.42

Appendix VI

(11/2000)

SERIES V: DATA COMMUNICATION OVER THE TELEPHONE NETWORK

Error control

Error-correcting procedures for DCEs using asynchronous-to-asynchronous conversion

Appendix VI:

Additional information for V.42 implementers regarding answerer detection patterns

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ITU-T Recommendation V.42 – Appendix VI

(Formerly CCITT Recommendation)

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DATA COMMUNICATION OVER THE TELEPHONE NETWORK

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ITU-T Recommendation V.42

Error-correcting procedures for DCEs using asynchronous-to-synchronous conversion

APPENDIX VI

Additional information for V.42 implementers regarding answerer detection patterns

Summary

This appendix gives non-normative additional information to indicate alternative capabilities or procedures.

Source

Appendix VI to ITU-T Recommendation V.42 was prepared 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.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not 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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Certain procedures, techniques, and behaviours may be included in implementations of the detection phase of V.42 to indicate alternative capabilities or procedures. Implementation of these procedures, etc. is not required for compliance with this Recommendation, but is permitted by this Recommendation.

This informative Appendix indicates the places in the text of this Recommendation where these procedures are referenced, described or permitted, and the potential benefits that may be gained by their implementation. The information contained in this Appendix is not exhaustive, and is not intended to preclude other extensions and enhancements which may be possible.

VI.1 Alternative answerer detection patterns

Clause 7.2.1.3 requires the answerer to transmit the answerer detection pattern, ADP, "at least ten times".

Table 3 indicates that the pattern 0 1010 0010 1 11...11 0 1100 0010 1 11...11 (E) and (C) separated by 8 to 16 one's is to be used as the ADP to indicate support for V.42, the pattern 0 1010 0010 1 11...11 0 0000 0000 1 11...11 (E) and (Null) separated by 8 to 16 one's to indicate no error correcting protocol and reserves the 'remaining 15-code points', 0 1010 0010 1 11...11 0 0000 XXXX 1 11...11 for future use.

In actuality, there are more than 15 other patterns.

It has been observed that a proprietary cellular phone modem protocol uses the pattern 0 1010 0010 1 11...11 0 1011 0010 1 11...11 (E) and (M) separated by 8 to 16 one's sent 5 or more times followed by the (E) and (C) pattern 10 or more times to indicate support for those cellular procedures as well as support for V.42. This pattern, EM, is not one of the previously reserved patterns.

With the addition of V.44 compression algorithm which uses the previously reserved User Data Subfield of the V.42 XID, the previously reserved pattern, 0 1010 0010 1 11...11 0 0000 1010 1 11...11 (E) and (P) separated by 8 to 16 one's may be sent 16 times followed by the (E) and (C) pattern 10 or more times to indicate that V.42 is supported and that the User Data Subfield may be extended to contain both V.44 parameters and manufacturer-specific fields.

VI.2 Skipping of originator/answerer detection patterns

ITU-T V.8 provides a method for bypassing the detection phase of V.42. Many answering modems enter the detection phase regardless of the V.8 protocol octet setting in order to detect alternative protocols such as those described in Annex A.

NOTE – 9.3.1/V.92 requires that both the originating and answering modems skip the V.42 detection phase if they both indicate that V.42 is supported in the V.8 protocol octet or in the V.92 short phase 1 signals.

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