International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

V.76

Corrigendum 1

(01/2005)

SERIES V: DATA COMMUNICATION OVER THE TELEPHONE NETWORK

Simultaneous transmission of data and other signals

Generic multiplexer using V.42 LAPM-based procedures

Corrigendum 1

ITU-T Recommendation V.76 (1996) – Corrigendum 1

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Generic multiplexer using V.42 LAPM-based procedures

Corrigendum 1

Summary

This corrigendum addresses corrections and clarifications in ITU-T Rec. V.76 (1996) concerning CRC calculation when using suspend/resume, N401 timer value and reuse of DLCI values.

Source

Corrigendum 1 to ITU-T Recommendation V.76 (1996) was approved on 8 January 2005 by ITU-T Study Group 16 (2005-2008) under the ITU-T Recommendation A.8 procedure.

FOREWORD

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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.

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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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Corrigendum 1

1) Clarification of CRC calculation when using suspend/resume

Amend clause 5.1.6.1 item b) to read:

b) the remainder of the division (modulo 2) by the generator polynomial $x^8 + x^2 + x + 1$, of the product of x^8 by the content of the frame existing between, but not including, the final bit of the opening flag and the first bit of the FCS, excluding bits inserted for transparency and real-time frames as defined in Annex A (including the bits of the suspend and resume flags).

Amend clause 5.1.6.2 item b) to read:

b) the remainder of the division (modulo 2) by the generator polynomial $x^{16} + x^{12} + x^5 + 1$, of the product of x^{16} by the content of the frame existing between, but not including, the final bit of the opening flag and the first bit of the FCS, excluding bits inserted for transparency and real-time frames as defined in Annex A (including the bits of the suspend and resume flags).

Amend clause 5.1.6.3 item b) to read:

b) the remainder of the division (modulo 2) by the generator polynomial $x^{32} + x^{26} + x^{23} + x^{22} + x^{16} + x^{12} + x^{11} + x^{10} + x^8 + x^7 + x^5 + x^4 + x^2 + x + 1$, of the product of x^{32} by the content of the frame existing between, but not including, the final bit of the opening flag and the first bit of the FCS, excluding bits inserted for transparency and real-time frames as defined in Annex A (including the bits of the suspend and resume flags).

2) Clarification of the N401 timer value

New text is added to the end of clause 9.3 (maximum number of octets in an information field (N401)) as follows:

N401 governs the maximum number of octets that can be carried in the information field of an I frame, an SREJ frame (m-SREJ procedure only), an XID frame, a UI frame, a UIH frame (see Appendix II), an SABME frame, a UA frame, a DISC frame, a DM frame, or a TEST frame transmitted by a data link connection entity. A default value for a DLC may be expressed as a specific value (e.g., 128) or implied by certain characteristics pertaining to the operation of the DLC (e.g., the maximum size block associated with the coder selected for an audio channel). There may also be frame-specific maxima for a DLC that may apply for certain procedures (e.g., a maximum information-field size for UI frames different than the maximum for the SABME frame). This parameter consists of two subparameters – one for each direction of transmission (i.e., a maximum information-field size in the direction from the DLC-opener to the remote station and a maximum from the remote station to the DLC-opener). Identical values need not be used for each direction. The value of N401 shall be in octets when signalled using H.245.

3) Clarification on the reuse of DLCI values

Amend clause 6.1.1 as follows:

The DLCI is used to identify an individual user information stream as well as to identify SU-to-SU connections. Multiple DLCIs shall be supported but the number is ~~implementation~~application-specific.

Selection of a ~~new~~ DLCI value shall be as follows.~~:~~

~~a)~~ The ~~the~~ initiator shall select DLCI values for new DLCs with increasing values starting from 0 DLCI values, originally chosen by the Initiator, that have been freed by either end should be reused in ascending order by Initiator rather than leaving unnecessary gaps in the numbering range.~~;~~

~~b)~~ The~~the~~ responder shall select DLCI values for new DLCs with decreasing values starting ~~from~~ from 63 when using one-octet address fields or 8191 when using two-octet address fields. DLCI values, originally chosen by the responder, that have been freed by either end should be reused in descending order by the responder rather than leaving unnecessary gaps in the numbering range.

The role of initiator and ~~or~~ responder shall be made known to the MF by the SU. The means of doing so is beyond the scope of this Recommendation.

Use of the second address~~-~~ field octet is optional. All DLC entities shall be able to receive frames with a two-octet address field. If a frame is received with an address field of a different type from the one negotiated, the receiving DLC entity shall ignore the frame.

~~Regardless of role, DLCI values freed as a result of releasing a DLC shall be reused prior to new values being allocated.~~ In case of collision (i.e., the same DLCI value being selected), the responder shall back off its attempt to establish a new DLC (i.e., it shall inform its SU of failure to establish the DLC it attempted and continue with the DLC establishment attempt by the initiator). Note that the procedures described above are intended to reduce the probability of collisions occurring.

The DLCI used on a given DLC is mapped to/from an internal ~~"~~"connection endpoint identifier~~"~~" for communication between the MF and the SU.

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