International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.992.3

Amendment 2

(07/2010)

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Recommendation ITU-T G.992.3

Asymmetric digital subscriber line transceivers 2 (ADSL2)

Amendment 2

Retrain on eoc protocol timeout

Summary

This amendment contains:

– Retrain on eoc protocol timeout (addition to existing functionality).

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.992.3	2002-07-29	15
1.1	ITU-T G.992.3 (2002) Amend. 1	2003-05-22	15
1.2	ITU-T G.992.3 (2002) Cor. 1	2003-12-14	15
1.3	ITU-T G.992.3 (2002) Cor. 2	2004-02-22	15
1.4	ITU-T G.992.3 (2002) Amend. 2	2004-04-30	15
1.5	ITU-T G.992.3 (2002) Amend. 3	2004-06-13	15
1.6	ITU-T G.992.3 (2002) Amend. 4	2004-06-13	15
2.0	ITU-T G.992.3	2005-01-13	15
2.1	ITU-T G.992.3 (2005) Amend. 1	2005-09-22	15
2.2	ITU-T G.992.3 (2005) Amend. 2	2006-03-29	15
2.3	ITU-T G.992.3 (2005) Amend. 3	2006-12-14	15
2.4	ITU-T G.992.3 (2005) Amend. 4	2007-07-29	15
2.5	ITU-T G.992.3 (2005) Amend. 5	2008-06-22	15
3.0	ITU-T G.992.3	2009-04-22	15
3.1	ITU-T G.992.3 (2009) Cor. 1	2009-11-13	15
3.2	ITU-T G.992.3 (2009) Amend. 1	2010-03-01	15
3.3	ITU-T G.992.3 (2009) Amend. 2	2010-07-29	15

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). 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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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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, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

Recommendation ITU-T G.992.3

Asymmetric digital subscriber line transceivers 2 (ADSL2)

Amendment 2

Retrain on eoc protocol timeout

Modify the fifth paragraph of clause 7.8.2.4.1 – Transmitter protocol as shown below:

When sending a new command message, the LSB of the control field shall be inverted from the previous command message, irrespective of the priority class. The transmitter shall send the command message one time and await a response message. No more than one command message of each priority value shall be awaiting a response message at any time. Upon receipt of a response message, a new command message may be sent. If a response message is not received, a time-out occurs and the command message is repeated without inverting the LSB of the control field. ~~Alternately, the ATU may abandon the command message a~~After an implementation-specific number of retransmissions, the ATU shall take recovery actions to accomplish the eoc command/response exchange; those recovery actions are also vendor discretionary and may involve a re-initialization through the high_BER-hs condition (see Annex D, Figure D.1). There are different time-out durations for the different priority messages and are displayed in Table 7-17. Timeouts are based starting from the instant the PMS-TC sends the last octet of the request message in a PMD.Bits.confirm primitive, until the instant the PMS-TC receives the first octet of the response message in a PMD.Bits.indicate primitive or a PMD.Synchflag.indicate primitive (see Figures 7-5 and 8-4 and Table 8-1).

Modify clause D.2.7 as shown below:

D.2.7 high_BER-hs: High bit error ratio in received data, re-initialize through an ITU-T G.994.1 event. This event occurs when some algorithm, which may be vendor-specific, determines that a full re-initialization (including an ITU-T G.994.1 session) is required. This event is (but is not required to be) related to a high level of near-end LCD, CRC or FEC anomalies over some period of time or the SEF (severely errored frame) or LOM (loss-of-margin) defect (see clause 8.12.1). It may also relate to far-end performance primitives (see clause 8.12.1) or unsuccessful eoc command/response exchange (see clause 7.8.2.4.1).

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