

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.998.3
Amendment 1
(08/2013)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Digital sections and digital line system – Metallic access
networks

Multi-pair bonding using time-division inverse
multiplexing

**Amendment 1 – Intentional temporary shutdown
of some bonded lines**

Recommendation ITU-T G.998.3 (2005) –
Amendment 1



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Recommendation ITU-T G.998.3

Multi-pair bonding using time-division inverse multiplexing

Amendment 1

Intentional temporary shutdown of some bonded lines

Summary

Amendment 1 to Recommendation ITU-T G.998.3 (2005) includes:

- a new clause 16 defining "intentional temporary shutdown of some bonded lines" (new functionality).

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.998.3	2005-01-13	15
1.1	ITU-T G.998.3 (2005) Amd. 1	2013-08-29	15

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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Recommendation ITU-T G.998.3

Multi-pair bonding using time-division inverse multiplexing

Amendment 1

Intentional temporary shutdown of some bonded lines

1) New clause 16 on "intentional temporary shutdown of some bonded lines"

Add a new clause 16 as follows:

16 Intentional temporary shutdown of some bonded lines

Customer premises equipment (CPE) with bonded digital subscriber lines (DSLs) may temporarily shut down some lines in a bonded group of lines while keeping at least one other line of the group in operation. This could be done to reduce the power consumption of the CPE to extend the operating duration of a back-up battery or to conserve energy during idle periods. The normal procedure for orderly shutdown of a DSL line may be used and later the DSL start-up procedure may be used when all lines need to be active. The orderly shutdown procedure for VDSL2 is specified in clause 11.2.3.9 of [ITU-T G.993.2] and for ADSL2/2plus in clauses 9.5.3.1 and 9.5.3.5 of [ITU-T G.992.3]. When a portion, but not all of the lines in a bonded group are shut down using the orderly shut-down procedure and later their operation resumes, the bonded group shall remain in service, without interruption of transmission. Furthermore, the service management function for the DSL access multiplexer (DSLAM) or the associated element management system (EMS) may need to be aware of the intentional shutdown of some lines so as to avoid unnecessary service alarms due to the resulting reduced bit-rate of the bonded DSL group.

A service alarm should be reported if all lines in a bonded group are shut down or if a line has a disorderly shutdown.

For Recommendation ITU-T G.991.2, the behaviour in this situation is for further study.

2) Clause 2, References

Add the following new reference to clause 2:

[ITU-T G.993.2] Recommendation ITU-T G.993.2 (2011), *Very high speed digital subscriber line transceivers 2 (VDSL2)*.

3) Clause 4, Abbreviations and acronyms

Add the following new abbreviations to clause 4:

DSLAM DSL Access Multiplexer

EMS Element Management System

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