

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

I.610
Amendment 2
(12/2006)

SERIES I: INTEGRATED SERVICES DIGITAL
NETWORK

Maintenance principles

B-ISDN operation and maintenance principles and
functions

**Amendment 2: Measurement of round trip delay
using loopback cell**

ITU-T Recommendation I.610 (1999) – Amendment 2



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ITU-T Recommendation I.610

B-ISDN operation and maintenance principles and functions

Amendment 2

Measurement of round trip delay using loopback cell

Summary

Amendment 2 to ITU-T Recommendation I.610 (1999) defines some previously unused areas in the ATM OA&M loopback (LB) cell format to allow the cell to be used for conducting round trip delay (RTD) measurements. In particular, this amendment defines the usage of a timestamp in association with a service verification indication.

Source

Amendment 2 to ITU-T Recommendation I.610 (1999) was approved on 22 December 2006 by ITU-T Study Group 13 (2005-2008) under the ITU-T Recommendation A.8 procedure.

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.

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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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B-ISDN operation and maintenance principles and functions

Amendment 2

Measurement of round trip delay using loopback cell

1) Clause 10.2.3

Add the following additional major bullets following the Source ID field... bullet point:

- *Timestamp field (4 octets)*: The use of this field is optional and when used contains an originating timestamp for the purpose of measuring round trip delay. This timestamp, which will be in milliseconds with a value assumed to be of local significance only, should be present only when the service verification flag is 1 and otherwise should be set to '6A'H.
- *Flags field (1 octet)*: The use of this field is optional and when used contains the following two flag bits with the remaining bits always set to 110101 in transmission and ignored in reception, and otherwise should be set to '6A'H:
 - *Service verification indication field (1 bit)*: This field is set to 1 for LB cells being used to conduct round trip delay measurements, and is otherwise set to 0. Note, specific procedures for using LB cells to perform round trip delay measurements are outside of the scope of this Recommendation.
 - *Hello indication field (1 bit)*: This field is set to 1 for LB cells being used for CP discovery, especially in conjunction with round trip delay measurements, and is otherwise set to 0.

2) Figure 14

Replace Figure 14 with the following:

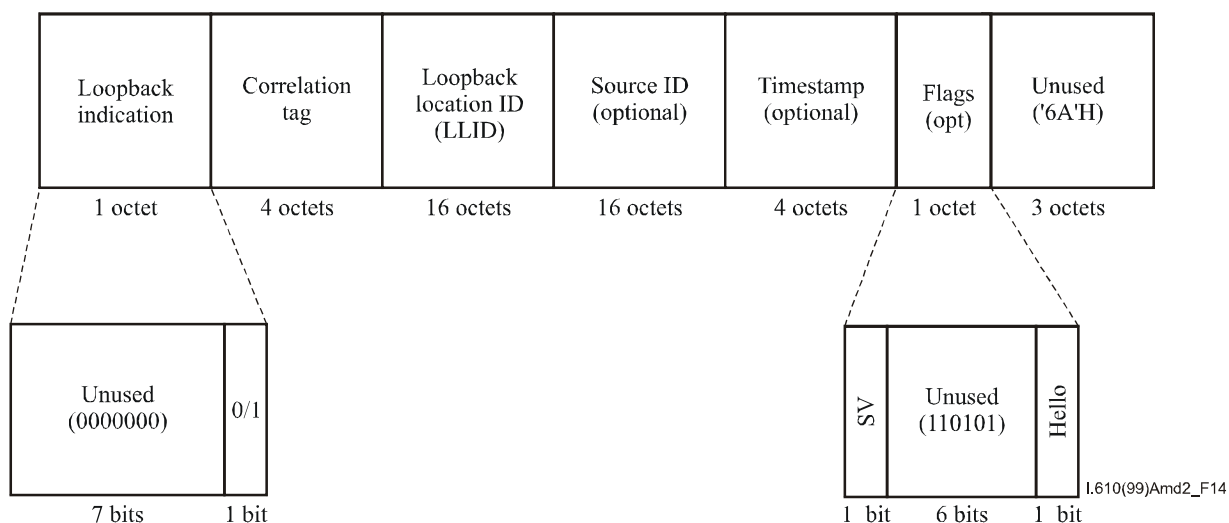


Figure 14/I.610 – Specific fields for loopback cell

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