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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.216

Amendment 2
(12/97)

SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS

Open System Interconnection – Service definitions

Information technology – Open Systems
Interconnection – Presentation service definition

**Amendment 2: Nested connections functional
unit**

ITU-T Recommendation X.216 – Amendment 2

(Previously CCITT Recommendation)

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INTERNATIONAL STANDARD 8822

ITU-T RECOMMENDATION X.216

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
PRESENTATION SERVICE DEFINITION**

**AMENDMENT 2
Nested connections functional unit**

Summary

The Presentation service definition defined in ITU-T Rec. X.216 | ISO/IEC 8822 is enhanced to define an optional functional unit which permits additional, independent, nested presentation connections within an existing presentation connection. This enhancement will support the reusability of existing application layer standards (each making full, and possibly incompatible, use of the presentation synchronization services) as components of new application layer standards.

Source

The ITU-T Recommendation X.216, Amendment 2 was approved on the 12th of December 1997. The identical text is also published as ISO/IEC International Standard 8822.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The 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 Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 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.

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As of the date of approval of this Recommendation, the 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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INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
PRESENTATION SERVICE DEFINITIONAMENDMENT 2
Nested connections functional unit

1) Subclause 2.1

Add the following reference by numerical order:

- ITU-T Recommendation X.215 (1995)/Amd.2 (1997) | ISO/IEC 8326:1996/Amd.2:1988, *Information technology – Open Systems Interconnection – Session service definition – Amendment 2: Nested connections functional unit.*

2) New subclause 3.4.20

Add a new subclause 3.4.20 as follows:

3.4.20 nested presentation connection: A presentation connection which is logically embedded within an existing presentation connection.

3) New subclause 6.2.7

Add a new subclause 6.2.7 as follows:

6.2.7 An application entity specification requiring a presentation connection may require the establishment of a new presentation connection end-point for a new presentation connection, or may require the establishment of a nested presentation connection end-point within the connection end-point for an existing (outer-level or nested) presentation connection. The issuing of a P-CONNECT request at a nested presentation end-point establishes a nested presentation connection. Nested presentation connections are entirely independent in relation to services provided directly by the presentation layer, but have some dependencies (specified in ITU-T Rec. X.215 | ISO/IEC 8326) in relation to services passed through from the session layer. Nested presentation connections can only be established if the immediately enclosing presentation connection has agreed the use of the nested connections functional unit.

4) Subclause 6.3

Add a new paragraph at the end of this subclause:

There is a one-to-one correspondence between presentation connection end-points and session connection end-points, and the nesting structure (if any) within an outer-level session connection end-point is identical to the nesting structure within the corresponding presentation connection end-point.

5) Subclause 7.1

Add a new paragraph at the end of this subclause as follows:

This service may be invoked at an outer-level presentation connection end-point to establish a new outer-level presentation connection, or may be invoked at a nested presentation connection end-point to establish a nested presentation connection.

6) Subclause 8.2

In this subclause in both the introductory sentence of item a), and in the sentence after the list, add and ITU-T Rec. X.215/Amd.2 | ISO/IEC 8326/Amd.2, after reference to ITU-T Rec. X.215 | ISO/IEC 8326.

Add at the end of the list in a) a new item:

- the nested connection functional unit.

7) Clause 10

Change Table 2 by adding User Summary at end of the list of parameters for P-CONNECT request, P-CONNECT indication and P-CONNECT response/confirm.

8) Subclause 10.2

Add to the end of the first sentence of this subclause:

... or to establish a nested presentation connection between them.

9) Subclause 10.2.1

Change Table 3 to replace all M entries with C entries for the Calling-presentation-address, Called-presentation-address, and Responding-presentation-address.

10) Subclauses 10.2.1.1 through 10.2.1.3

Add a new second paragraph to 10.2.1.1 through 10.2.1.3 as follows:

This parameter shall be present when an outer-level presentation connection is being established, and shall be absent when a nested presentation connection is being established.

11) Clause 11

Add new items c) and d) to the third paragraph of this clause:

- c) Services invoked on any presentation connection within the same outer-level connection are sequenced with respect to each other and with respect to services on that outer-level connection.
- d) Services on presentation connections within a nested set do not disrupt services on other presentation connections within the set, except that services on a nested presentation connection may be disrupted by any of the services listed in 11.5.4 which are invoked on any of the enclosing presentation connections.

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