INTERNATIONAL TELECOMMUNICATION UNION

ITU-T G.853.12

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TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

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

Digital transmission systems – Digital networks – Management of transport network

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Information viewpoint for pre-provisioned link management

ITU-T Recommendation G.853.12

(Previously CCITT Recommendation)

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ITU-T RECOMMENDATION G.853.12

INFORMATION VIEWPOINT FOR PRE-PROVISIONED LINK MANAGEMENT

Summary

The pre-provisioned link management service provides functionality to add/remove transport entities (link connections or connection termination points) to/from client linking entities (links/link ends). The client linking entities have to be created using the topology management community (G.85x.3 series of Recommendations). The transport entities that could be potentially added to the client linking entity have to be provided using either the pre-provisioned adaptation management (G.85x.8 series of Recommendation) within topological linking entities or using the link management within client linking entities.

Source

ITU-T Recommendation G.853.12 was prepared by ITU-T Study Group 4 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 26th of March 1999.

FOREWORD

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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

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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.

CONTENTS

Recommendation G.853.12

INFORMATION VIEWPOINT FOR PRE-PROVISIONED LINK MANAGEMENT

(Geneva, 1999)

1 Scope

This Recommendation specifies the information viewpoint that is related to the pre-provisioned link management enterprise specification defined in Recommendation G.852.12.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

[1] ITU-T Recommendation G.851.1 (1996), *Management of the transport network – Application of the RM-ODP framework.*

[2] ITU-T Recommendation G.853.1 (1999), *Common elements of the information viewpoint for the management of a transport network.*

[3] ITU-T Recommendation G.852.12 (1999), *Enterprise viewpoint for pre-provisioned link management.*

[4] ITU-T Recommendation G.854.12 (1999), *Computational viewpoint for pre-provisioned link management.*

[5] ITU-T Recommendation G.853.8 (1999), *Information viewpoint for pre-provisioned adaptation management.*

[6] ITU-T Recommendation G.853.10 (1999), *Information viewpoint for pre-provisioned link connection management.*

3 Definitions

None.

4 Abbreviations

This Recommendation uses the following abbreviations:

CTP Connection Termination Point

Id Identifier

imp imported

LC Link Connection

LE Link End

LND Layer Network Domain

pam pre-provisioned adaptation management

plcm pre-provisioned link connection management

plm pre-provisioned link management

SDH Synchronous Digital Hierarchy

WDM Wave Division Multiplexing

5 Conventions

None.

6 Class diagrams

6.1 UML class diagram representing relationships between classes

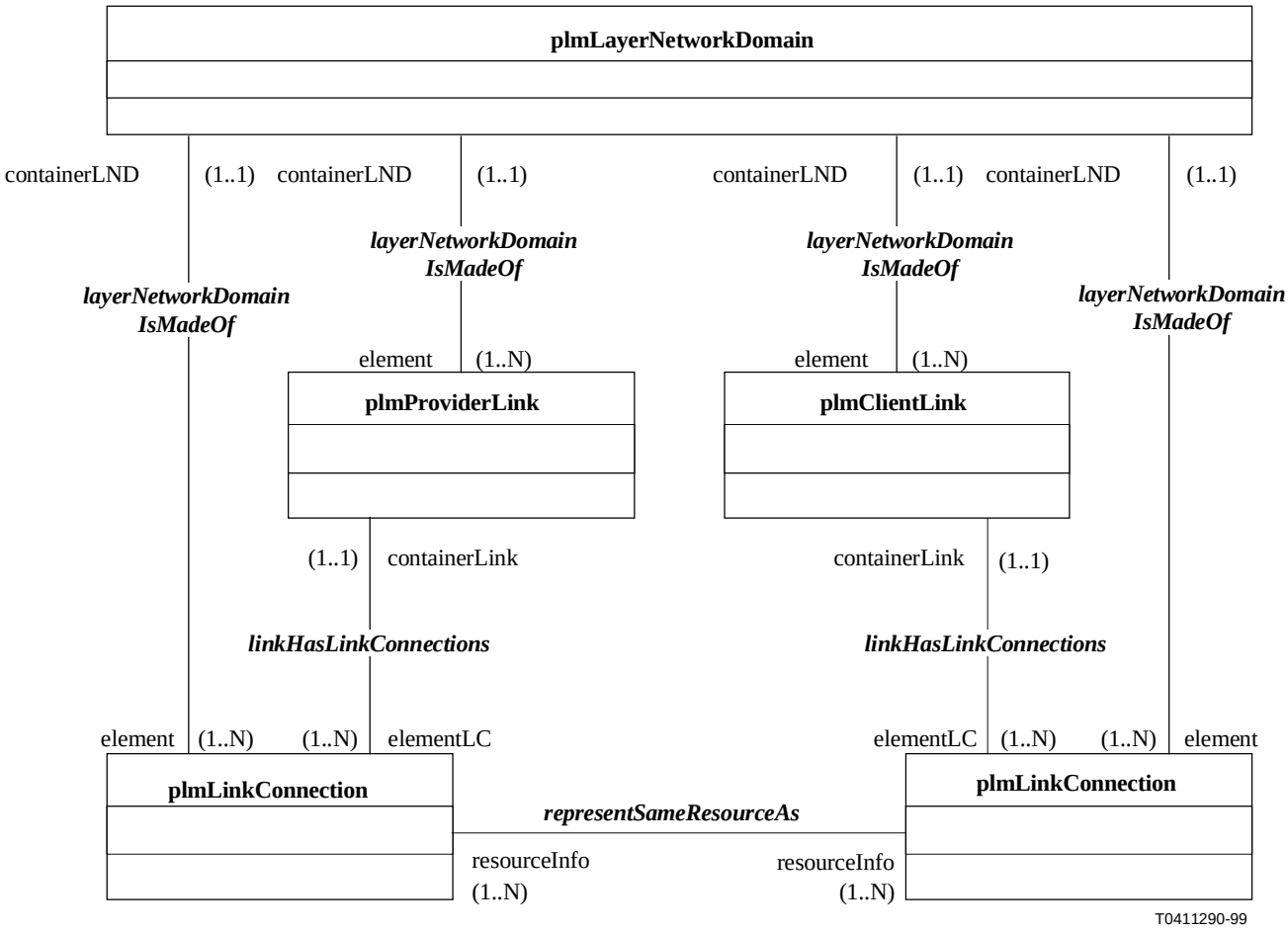

Figure 1/G.853.12 – UML class diagram (arc-oriented view)

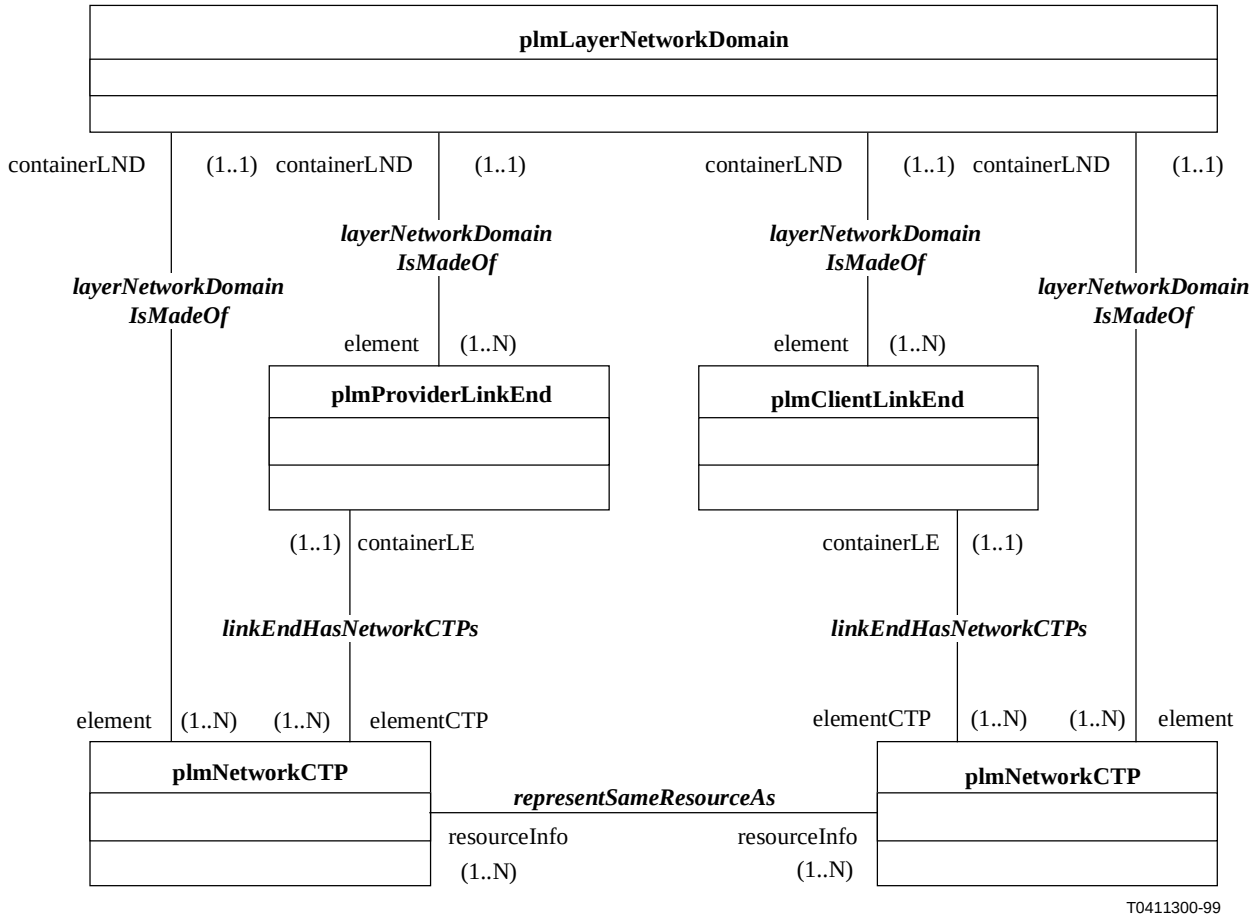

Figure 2/G.853.12 – UML class diagram (point-oriented view)

6.2 UML class diagram representing the inheritance hierarchy

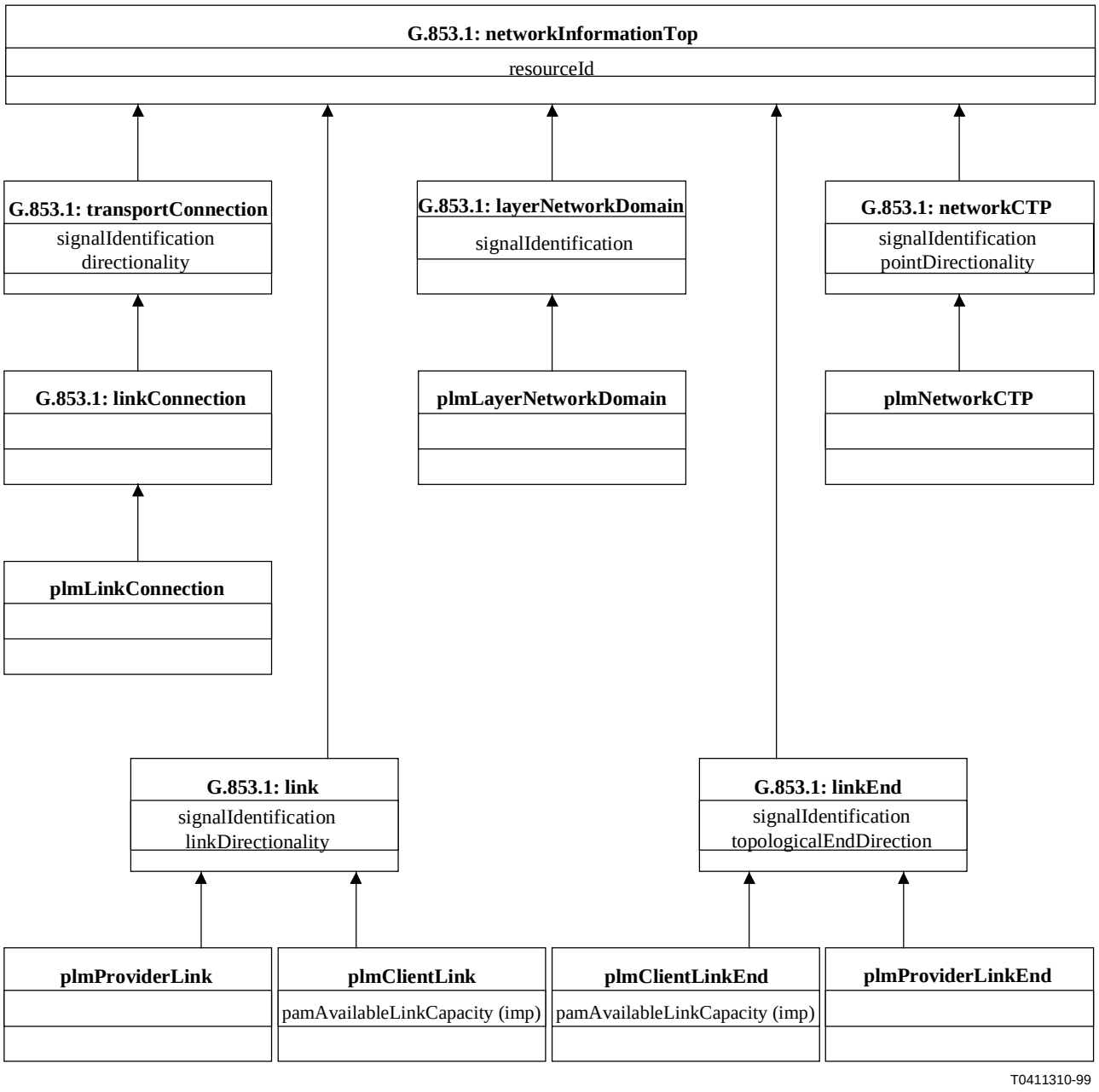

Figure 3/G.853.12 – Inheritance hierarchy

7 Label references

Table 1/G.853.12 – Label references

Full label reference	Local label reference
<"Rec. G.853.1", INFORMATION_OBJECT:layerNetworkDomain>	layerNetworkDomain
<"Rec. G.853.1", INFORMATION_OBJECT:link>	link
<"Rec. G.853.1", INFORMATION_OBJECT:linkConnection>	linkConnection
<"Rec. G.853.1", INFORMATION_OBJECT:linkEnd>	linkEnd
<"Rec. G.853.1", INFORMATION_OBJECT:networkCTP>	networkCTP
<"Rec. G.853.1", INFORMATION_RELATIONSHIP:layerNetworkDomainIsMadeOf>	layerNetworkDomainIsMadeOf
<"Rec. G.853.1", INFORMATION_RELATIONSHIP:linkHasLinkConnections>	linkHasLinkConnections
<"Rec. G.853.1", INFORMATION_RELATIONSHIP:linkEndHasNetworkCTPs>	linkEndHasNetworkCTPs
<"Rec. G.853.1", INFORMATION_RELATIONSHIP:representSameResourceAs>	representSameResourceAs
<"Rec. G.853.8", ATTRIBUTE:pamAvailableLinkCapacity>	pamAvailableLinkCapacity

8 Information object class definitions

8.1 plmClientLink

<COMMUNITY: Pre-Provisioned Link Management, ROLE: client linking entity>

DEFINITION
"This object class is derived from <link>."

ATTRIBUTE
<pamAvailableLinkCapacity>
"The <pamAvailableLinkCapacity> attribute represents the provisioned capacity that is not assigned[1]. This attribute is imported from "Rec G.853.8" COMMUNITY: pre-provisioned adaptation management."

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkHasLinkConnections>

8.2 plmClientLinkEnd

<COMMUNITY: Pre-Provisioned Link Management, ROLE: client linking entity>

DEFINITION
"This object class is derived from <linkEnd>."

ATTRIBUTE
<pamAvailableLinkCapacity>
"The <pamAvailableLinkCapacity> attribute represents the provisioned capacity that is not assigned[1]. This attribute is imported from "Rec G.853.8" COMMUNITY: pre-provisioned adaptation management."

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkEndHasNetworkCTPs>

[1] This state is managed in the pre-provisioned linkConnection management community (plcm).

8.3 plmLayerNetworkDomain

<COMMUNITY: Pre-provisioned Link Management, ROLE: layer network domain>

DEFINITION
"This object class is derived from <layerNetworkDomain>."

ATTRIBUTE
-- *none additional*

RELATIONSHIP
<layerNetworkDomainIsMadeOf>

8.4 plmLinkConnection

<COMMUNITY: Pre-Provisioned Link Management, ROLE: transport entity>

DEFINITION
"This object class is derived from <linkConnection>."

ATTRIBUTE
-- *none additional*

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkHasLinkConnections>
<representSameResourceAs>

8.5 plmNetworkCTP

<COMMUNITY: Pre-Provisioned Link Management, ROLE: transport entity>

DEFINITION
"This object class is derived from <networkCTP>."

ATTRIBUTE
-- *none additional*

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkEndHasNetworkCTPs>
<representSameResourceAs>

8.6 plmProviderLink

<COMMUNITY: Pre-Provisioned Link Management, ROLE: provider linking entity>

DEFINITION
"This object class is derived from <link>."

ATTRIBUTE
-- *none additional*

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkHasLinkConnections>

8.7 plmProviderLinkEnd

<COMMUNITY: Pre-Provisioned Link Management, ROLE: provider linking entity>

DEFINITION
"This object class is derived from <linkEnd>."

ATTRIBUTE
-- *none additional*

RELATIONSHIP
<layerNetworkDomainIsMadeOf>
<linkEndHasNetworkCTPs>

9 Information relationship definitions

None additional.

10 Static schemas

None.

11 Dynamic schemas

None.

12 Attributes

None.

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