



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.853.3

(03/99)

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

Digital transmission systems – Digital networks –
Management of transport network

Information viewpoint for topology management

ITU-T Recommendation G.853.3

(Previously CCITT Recommendation)

ITU-T G-SERIES RECOMMENDATIONS

TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

INTERNATIONAL TELEPHONE CONNECTIONS AND CIRCUITS	G.100–G.199
INTERNATIONAL ANALOGUE CARRIER SYSTEM	
GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER-TRANSMISSION SYSTEMS	G.200–G.299
INDIVIDUAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON METALLIC LINES	G.300–G.399
GENERAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON RADIO-RELAY OR SATELLITE LINKS AND INTERCONNECTION WITH METALLIC LINES	G.400–G.449
COORDINATION OF RADIOTELEPHONY AND LINE TELEPHONY	G.450–G.499
TESTING EQUIPMENTS	
TRANSMISSION MEDIA CHARACTERISTICS	G.600–G.699
DIGITAL TRANSMISSION SYSTEMS	
TERMINAL EQUIPMENTS	G.700–G.799
DIGITAL NETWORKS	G.800–G.899
General aspects	G.800–G.809
Design objectives for digital networks	G.810–G.819
Quality and availability targets	G.820–G.829
Network capabilities and functions	G.830–G.839
SDH network characteristics	G.840–G.849
Management of transport network	G.850–G.859
SDH radio and satellite systems integration	G.860–G.869
Optical transport networks	G.870–G.879
DIGITAL SECTIONS AND DIGITAL LINE SYSTEM	G.900–G.999

For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATION G.853.3

INFORMATION VIEWPOINT FOR TOPOLOGY MANAGEMENT

Summary

The topology management community is used to manage the topology of a layer network domain and the relationships between the resources of the layer network domain being managed. The service provided by the community allows for the creation and deletion of the following resources inside a layer network domain: subnetwork, link, topological link, link end, topological link end and access group. The service also provides a set of reporting actions to advise potential notification receivers of creation and deletion of resources in the community. The service is available between one single caller and one single provider.

The partitioning of subnetworks and links is not addressed in this community.

Source

ITU-T Recommendation G.853.3 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

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 term *recognized operating agency (ROA)* includes any individual, company, corporation or governmental organization that operates a public correspondence service. The terms *Administration*, *ROA* and *public correspondence* are defined in the *Constitution of the ITU (Geneva, 1992)*.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

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.

© ITU 1999

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

CONTENTS

	Page
1 Scope	1
2 References	1
3 Definitions	1
4 Abbreviations	1
5 Conventions	2
6 Class diagrams	2
6.1 UML class diagrams representing relationships between classes	2
6.2 UML class diagram representing the inheritance hierarchy	6
7 Label references	7
8 Information object class definitions	8
8.1 topmanAccessGroup	8
8.2 topmanLayerNetworkDomain	8
8.3 topmanLink	8
8.4 topmanLinkEnd	8
8.5 topmanNetworkTTP	9
8.6 topmanSubnetwork	9
8.7 topmanSubnetworkTP	9
8.8 topmanTopologicalLink	9
8.9 topmanTopologicalLinkEnd	10
9 Information relationship definitions	10
10 Static schemas	10
11 Dynamic schemas	10
12 Attributes	10