



INTERNATIONAL TELECOMMUNICATION  
UNION

TELECOMMUNICATION  
STANDARDIZATION SECTOR

STUDY PERIOD 1997 - 2000

COM 4-74-E  
September 1998  
Original: English

Questions: 15/4

Texte disponible seulement en  
Text available only in  
Texto disponible solamente en

} E

### STUDY GROUP 4 – CONTRIBUTION 74

SOURCE\*: CHAIRPERSON, WORKING PARTY 4/4

TITLE: M.3100 SERIES - TMN IMPLEMENTORS' GUIDE - DEFECTS AND  
RESOLUTIONS; VERSION 6 (24/06/98)

#### **ABSTRACT**

*This document is a compilation of reported defects in the 1995 editions of the ITU-T M.3100 series of Recommendations. It is intended to be an additional authoritative source of information for implementors to be read in conjunction with the Recommendations themselves. Further, the Guide includes defect resolutions, that will be corrected in the next editions of the relevant Recommendations.*

**Attention:** This is not an ITU publication made available to the public, but **an internal ITU Document** intended only for use by the Member States of the ITU and by its Sector Members and their respective staff and collaborators in their ITU related work. It shall not be made available to, and used by, any other persons or entities without the prior written consent of the ITU.

**CONTACT:** Ms. Lakshmi Raman  
Bellcore, USA

Tel.: +1 732 758 5272  
Email: lraman@notes.cc.bellcore.com

## **Preface**

The purpose of this Guide is to help the implementors of the 1995 ITU-T Recommendations on TMN principles and architecture, management services and generic information models. This Guide is not part of those Recommendations, but may be used in their ongoing maintenance.

The first version of the guide was produced following the Sydney 1995 WP 3/4 (now part of WP 4/4) expert groups meeting.

Items marked with an asterisk (\*) were added to the Guide or modified for this Version.

Every change to the Recommendations are identified with bullets having reference numbers of the form Yx where Y is a letter which corresponds to one of the ITU-T Recommendations and x is a number which identifies the particular change in the context of that Recommendation.

At the end of each bullet a defect report number (DR) is included if appropriate. This defect report number is used in Appendix A, which is a register of defect reports raised and their current status. Note that a single bullet may relate to more than one defect report, or a single defect report may result in more than one bullet being generated.

Wide distribution of this document is expected and encouraged. The latest version of this Guide will be available on the Word Wide Web server of the ITU (<http://www.itu.ch>) below the ITU-T SG 4 entry.

This Guide is published in the spirit of international communication and co-operation. However the authors assume no responsibility for the accuracy of the information it contains or for the consequences arising from its use.

## TABLE OF CONTENTS

<b>1. INTRODUCTION</b>	<b>4</b>
1.1 Background	4
1.2 Scope of the Guide	4
1.3 Contacts and Distribution of the Guide	4
1.4 History log	6
<b>2. DEFECT REPORT AND RESOLUTION PROCEDURES</b>	<b>6</b>
2.1 Submission of defects	6
2.2 Resolution of Defects	6
2.3 Defect report register	7
<b>3. IMPLEMENTATION GUIDANCE</b>	<b>7</b>
3.1 Changes to Rec M.3100 (1995)	7
3.2 Changes to Rec M.3101 (1995)	7
<b>APPENDIX A - TMN DEFECT REPORT REGISTER</b>	<b>8</b>
<b>APPENDIX B - TMN DEFECT REPORT FORM</b>	<b>14</b>

## **1. Introduction**

### **1.1 Background**

This Guide concerns the ITU-T M.3100 series of Recommendations on Telecommunications Management Network (TMN).

This Guide is informal in nature and the Guide is not an ITU-T Recommendation. The information it contains will serve as an information source for the ITU-T SG 4, who is responsible for maintaining the M.3100 series of TMN Recommendations, and other users both within and outside of the ITU-T. The changes are expected to be included into future versions of the Recommendations.

### **1.2 Scope of the Guide**

This guide resolves defects in (only) the following categories:

- editorial errors;
- technical errors, such as omissions or inconsistencies;
- ambiguities.

In addition the Guide may include explanatory text found necessary as a result of interpretation difficulties apparent from the defect reports.

Note: This Guide will not address proposed additions, deletions or modifications to the Recommendations that are not strictly related to implementation difficulties in the above categories.

Initially, the Guide is limited to defects concerning information models and implementation conformance statements proformas.

### **1.3 Contacts and Distribution of the Guide**

This Guide will be made available at ITU-T SG4 meetings as well as meeting of ITU-T WP4/4. In addition copies of this Guide, can in general, also be made available from one's national representative for ITU-T. Copies may also be obtained from other agencies.

#### **Contacts:**

##### ITU-T WP 4/4 Chairman

Lakshmi G. Raman  
ADC Telecommunications  
4900 West 78th Street  
Minneapolis, Minnesota 55435  
United States

Tel. +1 612 946 2090  
Fax. +1 612 946 3590  
Email: lakshmi@adc.com

Implementors' Guide Editor

Knut Johannessen  
Telenor Nett/N.EP  
Pb. 6701 St. Olavs plass  
N-0130 OSLO  
NORWAY

Tel. +47 22 77 72 88  
Fax. +47 22 11 05 20  
Email: knut.johannessen@s.nett.telenor.no

ITU-T SG4 Secretariat

Ardhendu M. Ganguli  
Study Group 4  
Telecommunications Standardization  
Bureau  
International Telecommunications Union  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

Tel. +41 22 730 58 82  
Fax. +41 22 730 58 53  
Email: ganguli@itu.ch

Defect group leaders

This list includes the names of leaders for Recommendations. Not all of the Recommendations may have defects raised against them and leaders are not identified for all Recommendations. However, whenever a defect is raised, a defect group leader will be identified for the relevant Recommendation.

<b>Recommendation</b>	<b>Defect group leader</b>	
Rec. M.3100 Generic Network Information Model	Lakshmi G. Raman ADC Telecommunications 4900 West 78 <sup>th</sup> Street Minneapolis, Minnesota 55435 United States	Tel. +1 612 946 2090 Fax. +1 612 946 3590 Email: lakshmi@adc.com
Rec. M.3101 Conformance Statement Proformas for Rec. M.3100 Generic Network Information Model	Knut Johannessen Telenor Nett/N.EP Pb. 6701 St. Olavs plass N-0130 OSLO NORWAY	Tel. +47 22 77 72 88 Fax. +47 22 11 05 20 Email: knut.johannessen@s.nett.telenor.no

**1.4 History log**

<b>Item</b>	<b>Location</b>	<b>Reason</b>
1.0	Geneva, January 1996	First version of the Guide
2.0	Tokyo, April 1996	Second version of the Guide
3.0	Edinburgh, July 1996	Third version of the Guide
4.0	Geneva, December 1996	Correction of editorial errors (e.g. missing semicolons) Addition of new defect resolutions including modifications to existing entries.
4.0a	Oslo, January 1997	Correction of editorial errors (e.g. syntax errors)
4.0b	Oslo, May 1997	Correction of editorial errors (e.g. syntax errors)
4.1	Beijing, June 1997	Correction of editorial errors (e.g. missing semicolons) Addition of new defect resolutions including modifications to existing entries.
5.0	Geneva, October 1997	SG approval Note - All approved corrections to Rec. M.3100 is published in a technical corrigendum.
6.0	Geneva, June 1998	All resolved defects are documented in M.3100 Technical Corrigendum 1. The resolutions are removed from the implementors guide (this document).

## **2. Defect Report and Resolution Procedures**

### **2.1 Submission of defects**

Any implementor of the TMN Recommendations is invited to submit TMN defect report using the form in Appendix B of the Guide. The defect should be submitted to the ITU-T SG4 Secretariat and copied to the ITU-T WP4/4 Chairman. Each form should cover a single defect. It is important that the form is completed accurately, especially the sections which relate to the base material against which the defect report is being raised.

### **2.2 Resolution of Defects**

A TMN defect resolution group is established for each of the Recommendations. In some cases a group covers more than one Recommendation. Following agreement on a resolution, within the defect resolution group, the proposed resolution may require approval of ITU-T WP4/4 and ITU-T SG4.

This Guide will contain resolutions as they are agreed by the defect resolution group. The status of each will be reflected in Appendix A of the Guide and any modifications required to the resolutions themselves prior to final approval, will be reflected in Section 3 of the Guide.

Please note that individual responses can not be given to an individual submitting defect reports, and that the procedure is not intended as a consulting service.

### **2.3 Defect report register**

New defect reports will be included in the report of the relevant Question or Working Party.

### **3. Implementation Guidance**

Remember that this Guide is intended to be an authoritative source of information for implementors of the TMN Recommendations, however it is not itself an ITU-T Recommendation.

Items marked with an asterisk (\*) were added to the Guide or modified for this version of the Guide.

Bullets have reference numbers of the form Yx where Y is a letter which corresponds to one of the ITU-T Recommendations, and x is a number which identified the bullet in the context of that Recommendation.

At the end of each bullet title a defect report number (DR) is included if appropriate. This defect report number is used in Annex A, which is a register of defect reports raised and their current status. Note that a single bullet may relate to more than one defect report, or a single defect report may result in more than one bullet being generated. Text contained in this clause shall only be considered final when the associated changes are part of a revised Recommendation.

#### **3.1 Changes to Rec M.3100 (1995)**

See Rec. M.3100 Technical corrigendum 1 for approved and published corrections.

#### **3.2 Changes to Rec M.3101 (1995)**

None

## Appendix A - TMN Defect Report Register

The defects reported to date are listed below. The status of each is indicated according to the classification outlined below:

### **O Open**

- The defect has been submitted, a solution may have been proposed, but the Defect Resolution Group has not yet come to an agreement.

### **A/U Agreed/Unanimous**

- Proposed solution agreed by everyone in the Defect Resolution Group
- Pending approval by affected Study Group

### **A/C Agreed/Consensus**

- Consensus solution agreed by the Defect Resolution Group and documented in this version of the Implementors' Guide.
- Pending approval by affected Study Group

### **A Agreed**

- Proposed solution agreed by the Defect Resolution Group
- Pending approval by affected Study Group

Note: This status value is no longer to be used and has been replaced with the A/U and A/C status values.

### **C Complete**

- Defect resolution approval by full Study Group
- Final resolution reflected in this version of Implementor's Guide

### **P Published**

- Change included in published version

### **R Rejected**

- As a defect (may be misinterpretation, request for extension or have already been corrected in subsequent version of text)

### **W Withdrawn**

- Defect report withdrawn by source.

The severity of each is indicated according to the classification outlined below:

**m Minor**

The following defects are classified as minor:

- Pure syntax errors in GDMO templates (e.g. missing semicolons)
- Obvious misalignment in names of attributes in the GDMO and ASN.1
- Missing ASN.1 productions where the text is clear as to the syntax, semantics and data type
- Clarifications of ambiguities in the text if supported by the formal definitions
- Typographical errors.

**M Major**

- All other defects are classified as major.

ITU-T Recommendation M.3100 (1995)

<i>Status</i>	<i>Severity</i>	<i>Defect Number</i>	<i>Source</i>	<i>Guide Entry</i>	<i>Other reference</i>	<i>Subject Matter</i>
R	M	DR-M3100-1	Deutsche Telecom	None	SYD-46, M.3100/§3.5.5	Missing ToTermination in Multi-point Cross-Connection. In the case of a multi-point cross-connection, the to-termination points are not identified directly by the Multi-point Cross-Connection object instance, but by the Cross-Connection object instances that are contained by the Multi-point Cross-Connection instance.
P	M	DR-M3100-2	Deutsche Telecom	TC <sup>1</sup> 1	SYD-46, M.3100/Fig I.6	Information flow in Figure I.6 should be from left to right and the sink and source labels should be corrected
P	M	DR-M3100-3	Australia	TC 1	SYD WD-M7(R1) TD-6 (4/4)	Modify the subordinateCircuitPackSoftwareLoad attribute behaviour to add clarification
P	M	DR-M3100-4	Australia	TC 1	SYD WD-M7 TD-6 (4/4)	Add DELETE to (new version of) autogenerated circuitPack name binding.
P	m	DR-M3100-5	Australia	TC 1	SYD WD-M7	Additional user guidelines on use of supportedByObjectList
P	m	DR-M3100-6	Japan	TC 1	Geneve WD-M11/12	Multiple use of <i>package</i> label in OID assignments
P	M	DR-M3100-7	Bellcore	TC 1	TOK-42	Addition of Error Parameter to (some) name bindings
P	M	DR-M3100-8	Bellcore	TC 1	TOK-41	Missing resource type attribute in equipmentR1 object class
P	M	DR-M3100-9	Bellcore	TC 1	Tokyo WD-MM	Missing ProblemCause value
P	M	DR-M3100-10	ETSI	TC 1	TOK -58	Missing probable cause values (derived from work on GSM) NOTE: The applicable generic or otherwise useful set of new probable cause values has been added to M.3100. Too generic (e.g. equipmentFailure) and too specific (or implementation oriented) probable cause values are not considered useful and are not included.

<sup>1</sup> Defect resolutions are published in M.3100 Technical Corrigendum 1 (TC-1).  
ITU-T\COM-T\COM04\C\074E.DOC

*ITU-T Recommendation M.3100 (1995)*

<i>Status</i>	<i>Severity</i>	<i>Defect Number</i>	<i>Source</i>	<i>Guide Entry</i>	<i>Other reference</i>	<i>Subject Matter</i>
P	M	DR-M3100-11	Nokia	TC 1	EDI-11	Missing probable cause values for real time clock
P	m	DR-M3100-12	Nokia	TC 1	EDI-51	Duplicated behaviour definition in name binding.
W	M	DR-M3100-13	Nokia	TC 1	EDI-52	Use of crossConnectionPackage
P	m	DR-M3100-14	Nokia	TC 1	EDI-53	Typographical and editorial errors.
P	M	DR-M3100-15	Nokia	TC 1	EDI-54	Revised crossConnection
O	M	DR-M3100-16	Fujitsu		EDI-29	Identification of physical connectivity in circuitPack NOTE: Also addressed by DR-M3100-20
P	M	DR-M3100-17	Q.15/4	TC 1	WD-x	Missing namebinding from managedElementComplex
P	m	DR-M3100-18	Italy (ETSI)	TC 1	D-012	Possible values of equipmentHolderType
P	M	DR-M3100-19	Italy (ETSI)	TC 1	D-012	Need of possibleCircuitPackList attribute
O	M	DR-M3100-20	Italy (ETSI)		D-012	Modelling of cables, connectors and backplane NOTE: Modelling of cables and connectors are also addressed by DR-M3100-16
P	M	DR-M3100-21	Q.15/4	TC 1	WD-x	Missing name bindings from managedElement (and subclasses) to managed objects named from system in X.700 series

ITU-T Recommendation M.3100 (1995)

<i>Status</i>	<i>Severity</i>	<i>Defect Number</i>	<i>Source</i>	<i>Guide Entry</i>	<i>Other reference</i>	<i>Subject Matter</i>
P	M	DR-M3100-22	Nokia	TC 1	D-022	Assignment of probable cause values related to radio relay management NOTE: A subset of the proposed values has been included in version 4.0 of the implementors' guide.
P	M	DR-M3100-23	USA	TC 1	D-008	Enhancement of the generalErrorParameter with addition of new cause codes.
P	m	DR-M3100-24	WP 4/4	TC 1	TD-71	Several editors errors are identified. NOTE: Some issues have been addressed in previous defect reports.
P	m	DR-M3100-25	ETSI	TC 1	WD-5	Definition of object identifier of e0-e4 levels.
P	M	DR-M3100-26	Lucent	TC 1	Beijing-30	The defect report proposes clarification of delete behaviour of circuitPack as follows: "Circuit packs are deleted only by the manager. It is not automatically deleted when removed".
P	M	DR-M3100-27	ETSI	TC 1	Beijing-24	Modification to behaviour of equipmentHolder-equipmentHolder name binding to allow an equipmentHolder to contain both equipmentHolder and circuitPack objects.
P	M	DR-M3100-28	USA	TC 1	Beijing-45	Addition of missing notifications to fabricR1 and gtp managed object class. NOTE: No object identifier values has been assigned in this document as further changes to these object classes is expected before publication of the next version of M.3100.
P	m	DR-M3100-29	China	TC 1	TD-38 (4/4)	Missing name binding of managedElementComplex to network.

ITU-T Recommendation M.3101 (1995)

<i>Status</i>	<i>Severity</i>	<i>Defect Number</i>	<i>Source</i>	<i>Guide Entry</i>	<i>Other reference</i>	<i>Subject Matter</i>

## Appendix B - TMN Defect Report Form

### DEFECT REPORT FORM

1. Defect Report Number: *Recommendation code/numeric*  
*Note: Only the recommendation is identified by the defect report submitter*
  
2. Source: *country, member etc*  
*Note: Filled out by the defect report submitter*
  
3. Addressed to: *Defect editors group reference*  
*Note: Filled out by the defect report submitter*
  
4. (a) ITU-T TSB: *administrative body reference*  
(b) ITU-T WP:  
*Note: Not filled out by the defect report submitter*
  
5. Date circulated by *date*  
administrative body  
*Note: Filled out by the TSB or WP*
  
6. Deadline for response from editor: *date*  
*Note: Determined by the Defect Resolution Group*
  
7. Defect Report Concerning: *Recommendation number and publication date*  
*Note: Filled out by the defect report submitter*
  
8. Qualifier: *e.g. error, omission, clarification required*  
*Note: Filled out by the defect report submitter*
  
9. Reference in document: *clause number*  
*Note: Filled out by the defect report submitter*

10. Nature of defect: *complete, concise explanation of the perceived problem*  
*Note: Filled out by the defect report submitter*
  
11. Solution proposed by source: *optional*
  
12. Editors response: *any material proposed for processing as an erratum to, an amendment to or a commentary on the final Recommendation text. This will be included in Chapter 3 of a later version of this document.*