



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

**T.120
Implementors'
Guide**

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

(5 August 2005)

SERIES T: TERMINALS FOR TELEMATIC SERVICES

**Implementors' Guide for ITU-T Rec. T.120 and
T.130 sub-series: Data protocols for multimedia
conferencing**

Summary

This document is a compilation of reported defects identified with the 1993-1999 editions of the ITU-T T.120-series Recommendations. It is intended to be read in conjunction with the Recommendations to serve as an additional authoritative source of information for implementors. The changes, clarifications and corrections defined herein are expected to be included in future versions of affected T.120-series Recommendations.

This revision contains all updates submitted up to and including those at Study Group 16 meeting, July/August 2005, in Geneva (TD 145/PLEN). This Implementors' Guide supersedes the ITU-T T.120 Recommendations series Implementors' Guide approved in January 2004.

Document History

Version	Date	Description
1	15 February 1996	Initial version - completed at the ITU-T Study Group 8 meeting, Geneva, 6-15 February 1996
2	26 April 1996	Updated at the Q.10/8 Rapporteur's meeting, Boston, 21-26 April 1996 Sections added: 7.5.4 and 7.5.5
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7	20 May 1999	Updated at the ITU-T SG 16 meeting, Santiago, 17-28 May 1999 Added sections 6.8.6.1 and 6.8.9.1
8	8 June 2001	Eighth version – Completed at the ITU-T Study Group 16 Rapporteurs meeting.
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10	30 January 2004	Tenth version – Completed at ITU-T Study Group 16 Rapporteurs meeting.
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IMPLEMENTOR'S GUIDE FOR THE ITU-T T.120 RECOMMENDATION SERIES - DATA PROTOCOLS FOR MULTIMEDIA CONFERENCING

1. Introduction

This document is a compilation of reported defects identified with the 1993-1999 editions of the ITU-T T.120-series Recommendations. It is intended to be read in conjunction with the Recommendations to serve as an additional authoritative source of information for implementors. The changes, clarifications and corrections defined herein are expected to be included in future versions of affected T.120-series Recommendations.

The first version of the guide was produced following the February 1996 ITU-T Study Group 8 meeting. Wide distribution of this document is expected and encouraged.

2. Scope

This Guide resolves defects in the following categories:

- Editorial errors
- Technical errors such as omissions or inconsistencies
- Ambiguities.

In addition, the Guide may include explanatory text found necessary because of interpretation difficulties apparent from the defect reports.

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. Proposals for new features should be made in the normal way through contributions to the ITU-T.

3. Policies for updating this document

This document is managed by the ITU-T Study Group 16 Question 1 Rapporteur's Group. It can be revised at any recognized Q.1/16 Rapporteur's Group meeting provided the proposed revisions are unanimously accepted by the members of the group. A revision history cataloguing the evolution of this document is included.

4. Defect Resolution Procedure

Upon discovering technical defects with any components of the T.120 Recommendations series, please provide a written description directly to the Q.1/16 Rapporteur.

5. References

This document refers to the following T.120-series Recommendations:

- ITU-T Recommendation T.120 (07/96) - *Data Protocols for Multimedia Conferencing*.
- ITU-T Recommendation T.120, Annex C (02/98) - *Lightweight Profiles for the T.120 Architecture*.
- ITU-T Recommendation T.121 (07/96) - *Generic Application Template*.

- ITU-T Recommendation T.122 (02/98) - *Multipoint Communication Service - Service Definition.*
- ITU-T Recommendation T.123 (05/99) - *Network Specific Data Protocol Stacks for Multimedia Conferencing.*
- ITU-T Recommendation T.124 (02/98) - *Generic Conference Control.*
- ITU-T Recommendation T.125 (02/98) - *Multipoint Communication Service - Protocol Specification.*
- ITU-T Recommendation T.126 (07/97) - *Multipoint Still Image and Annotation Protocol.*
- ITU-T Recommendation T.127 (08/95) - *Multipoint Binary File Transfer Protocol.*
- ITU-T Recommendation T.128 (02/98) - *Multipoint Application Sharing.*
- ITU-T Recommendation T.134 (02/98) - *Text Chat Application Entity.*
- ITU-T Recommendation T.135 (02/98) - *User-To-Reservation System Transactions within T.120 Conferences.*
- ITU-T Recommendation T.136 (05/99) - *Remote Device Control Application Protocol.*
- ITU-T Recommendation H.282 (05/99)- *A Far End Camera Control Protocol for Video Conferencing Using H.224.*

6. Nomenclature

In addition to traditional revision marks, the following marks and symbols are used to indicate to the reader how changes to the text of a Recommendation should be applied:

Symbol	Description
<u><i>[Begin Correction]</i></u>	Identifies the start of revision marked text based on extractions from the published Recommendations affected by the correction being described.
<u><i>[End Correction]</i></u>	Identifies the end of revision marked text based on extractions from the published Recommendations affected by the correction being described.
...	Indicates that the portion of the Recommendation between the text appearing before and after this symbol has remained unaffected by the correction being described and has been omitted for brevity.
--- SPECIAL INSTRUCTIONS --- <i>{instructions}</i>	Indicates a set of special editing instructions to be followed.

7. Technical and Editorial Corrections

7.1 Technical and Editorial Corrections to ITU-T Recommendation T.120

7.1.1 Addition of new MCS static channel assignments

Description: T.120 Annex A1.1 contains a table of MCS Static Channel ID numbers. Two new Application Protocol Entities have been defined, each with a new Channel ID. The table is updated to add Channel IDs 11 and 12.

[Begin Correction]

A1.1 Static Channels

Symbolic Name	MCS Channel ID	Description	Recommendation
GCC-CHANNEL-0	1	GCC Broadcast Channel	T.124
GCC-CHANNEL-1	2	Convenor Channel	T.124
SI-CHANNEL-0	8	MSIA Communications Channel	T.126
MBFT-CHANNEL-0	9	Control Channel	T.127
MBFT-CHANNEL-1	10	Data Channel	T.127
AS-CHANNEL-0	11	Application Sharing Channel	T.128
CHAT-CHANNEL-0	12	Chat Data Channel	T.134

[End Correction]

7.2 Technical and Editorial Corrections to ITU-T Recommendation T.120, Annex C

-None-

7.3 Technical and Editorial Corrections to ITU-T Recommendation T.121

-None-

7.4 Technical and Editorial Corrections to ITU-T Recommendation T.122

-None-

7.5 Technical and Editorial Corrections to ITU-T Recommendation T.123

7.5.1 Clarifications to Section B.9 – Connection Negotiation Protocol (CNP)

Text to clarify the usage of TPDU identifiers is being added to the overview of Section B.9 as follows:

B.9.1 Overview

The PDUs defined in this protocol are based on their X.224/Class 0 counterparts. Both X.224 and CNP provide Connect Request, Connect Confirm, Disconnect Request, Data, and Error TPDUs. In addition, CNP provides a **NonStandardPDU** for protocol extensibility.

The CNP TPDUs defined in this Annex shall not be used outside the context of T.120 communications.

7.6 Technical and Editorial Corrections to ITU-T Recommendation T.124

7.6.1 Addition of Unicode Support for Conference Names and Passwords

Description: In order to better support these users of Unicode languages the definitions of ConferenceName and Password shall be modified with additional optional fields past the extension markers. These fields will allow the full support of Unicode strings for the identification of conference names and for conference passwords. The following are the proposed modifications to the ASN.1.

ConferenceName ::= SEQUENCE

```
{
    numeric          SimpleNumericString,
    text             SimpleTextString OPTIONAL,
    ...,
    unicode text     TextString OPTIONAL
}
```

ConferenceNameSelector ::= CHOICE

```
{
    numeric          SimpleNumericString,
    text             SimpleTextString,
    ...,
    unicode text     TextString
}
```

Password ::= SEQUENCE

```
{
    numeric          SimpleNumericString,
    text             SimpleTextString OPTIONAL,
    ...,
    unicode text     TextString OPTIONAL
}
```

PasswordSelector ::= CHOICE

```
{
    numeric          SimpleNumericString,
    text             SimpleTextString,
    ...,
    unicode text     TextString
}
```

[End Correction]

7.7 Technical and Editorial Corrections to ITU-T Recommendation T.125

-None-

7.8 Technical and Editorial Corrections to ITU-T Recommendation T.126

7.8.1 ASN.1 Errata

Description: the field “Point” is referred to but undefined in the ASN.1 module for T.126. It should be replaced in its single occurrence by “WorkspacePoint”.

The ASN.1 text shall be amended as shown below by the underline.

[Begin Correction]

...

```
-- EditablePlaneCopyDescriptor
-- Paired list of handles for source objects and their copies.
EditablePlaneCopyDescriptor ::= SEQUENCE
{
    objectList SEQUENCE (SIZE (1..65536)) OF SEQUENCE
    {
        sourceObjectHandle    Handle,
        destinationObjectHandle    Handle
        -- This handle is used to reference the new copy of the
        -- source object in the future.
    },
    destinationOffset WorkspacePoint OPTIONAL,
        -- This parameter defines an offset to be added to the
        -- coordinates of all of the copied objects. If not present,
        -- zero offset is assumed.
    planeClearFlag    BOOLEAN,
        -- When FALSE, the destination objects are appended to
        -- the existing set of objects in the destination plane. When
        -- TRUE, all existing objects in the destination plane are
        -- deleted prior to the copy operation.
}
...
```

...

[End Correction]

7.9 Technical and Editorial Corrections to ITU-T Recommendation T.127

7.9.1 ASN.1 Errata

Description: The following additions to the ASN.1 for the File-OfferPDU were omitted from the published text, as documented in the editor's errata sheet issued at the Paris Rapporteur meeting of 10/95.

The ASN.1 text shown below shall be added.

[Begin Correction]

```
File-OfferPDU ::= SEQUENCE
{
```

file-header	FileHeader,	
data-channel-id	ChannelID,	
file-handle	Handle,	
roster-instance	INTEGER (0..65535) OPTIONAL,	
file-transmit-token	TokenID OPTIONAL,	
file-request-token	TokenID OPTIONAL,	
file-request-handle	Handle OPTIONAL,	
mbftID	UserID OPTIONAL,	
compression-specifier	CompressionSpecifier OPTIONAL,	
compressed-filesize	INTEGER OPTIONAL,	
ack-flag	BOOLEAN,	-- True if acknowledgements -- required
...		

[End Correction]

7.10 Technical and Editorial Corrections to ITU-T Recommendation T.128

-None-

7.11 Technical and Editorial Corrections to ITU-T Recommendation T.134

-None-

7.12 Technical and Editorial Corrections to ITU-T Recommendation T.135

7.12.1 Corrections to Section 9.2 - URST ASN.1 Module

GCC-PROTOCOL is usually not associated with an object identifier (OID) except in T.135. Therefore, to be consistent with the other T.120-series documents, the OID reference in Section 9.2 is removed as shown below.

[Begin Correction]

...

-- Imports definitions from T.124

IMPORTS

TextString, SimpleTextString, DialingString, ExtraDialingString, SubAddressString,
H221NonStandardIdentifier, Key, NonStandardParameter, ChallengeResponse, ChallengeRequest,
Privilege

FROM GCC-PROTOCOL ~~(itu-t(0)-recommendation(0)-t(20)-124);~~

[End Correction]

7.13 Technical and Editorial Corrections to ITU-T Recommendation T.136

-None-

7.14 Technical and Editorial Corrections to ITU-T Recommendation H.282

-None-

Annex: T.120 Recommendation Series Defect Report Form
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DATE:	
CONTACT INFORMATION NAME: COMPANY: ADDRESS: TEL: FAX: EMAIL:	
AFFECTED RECOMMENDATIONS:	
DESCRIPTION OF PROBLEM:	
SUGGESTIONS FOR RESOLUTION:	

Note - Attach additional pages if more space is required than is provided above.
