

INTERNATIONAL TELECOMMUNICATION UNION





SERIES T: TERMINALS FOR TELEMATIC SERVICES

Binary file transfer format for the telematic services

Amendment 1: Extensions of BFT format

ITU-T Recommendation T.434 - Amendment 1

(Previously CCITT Recommendation)

ITU-T T-SERIES RECOMMENDATIONS TERMINALS FOR TELEMATIC SERVICES

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

ITU-T RECOMMENDATION T.434

BINARY FILE TRANSFER FORMAT FOR THE TELEMATIC SERVICES

AMENDMENT 1

Extension of BFT format

Summary

This Amendment contains some changes to the main body and to Annex A of Recommendation T.434 to extend the binary file transfer format. The extension is to introduce two new attributes: store-and-forward and file-retrieval. Store-and-forward attribute indicates information used by store-and-forward system. It contains characteristics of a document that is transferred, routing information and delivery information. File-and-retrieval attribute contains information for archiving, management and manipulation of documents.

Source

Amendment 1 to ITU-T Recommendation T.434 was prepared by ITU-T Study Group 8 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 18th of June 1998.

i

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

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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CONTENTS

Page

1)	Table 1/T.434	1
2)	New subclauses 5.17/T.434 and 5.18/T.434	2
3)	Annex A/T.434	6

BINARY FILE TRANSFER FORMAT FOR THE TELEMATIC SERVICES

AMENDMENT 1

Extension of BFT format

(Geneva, 1998)

1) Table 1/T.434

Replace Table 1 with the following:

Attribute name
protocol version
filename
permitted actions
contents type
storage account
date and time of creation
date and time of last modification
date and time of last read access
identity of creator
identity of last modifier
identity of last reader
filesize
future filesize
access control
legal qualifications
private use
structure
application reference
machine
operating system
recipient
character set
compression
environment
pathname
store-and-forward
user visible string
file retrieval
data file content
data file content

Table 1/T.434 – File attributes

2) New subclauses 5.17/T.434 and 5.18/T.434

After subclause 5.16, add the following:

5.17 Store-and-forward syntax

The store-and-forward attribute conveys information that store-and-forward system makes use of. The value of the store-and-forward attribute is of type Store-And-Forward-Attribute.

store-and-forward [27] IMPLICIT Store-And-Forward-Attribute OPTIONAL

Store-And-Forward-Attribute ::= SEQUENCE {

store-and-forward-request [0] IMPLICIT Store-And-Forward-Request OPTIONAL,

- -- The store-and-forward request attribute conveys information from the originator and concerning
- -- the recipients. The value of the store-and-forward request attribute is of type Store-And-Forward-

-- Request defined in 5.17.1.

delivery-information [1] IMPLICIT Delivery-Information OPTIONAL }

- -- The delivery information attribute conveys additional information of delivery from
- -- store-and-forward system to designated terminal. The value of the delivery information request

-- attribute is of type Delivery-Information defined in 5.17.13.

5.17.1 Store-and-forward request syntax

The store-and-forward request syntax is defined below:

	Store-And-Forward-Request	::=	SEQUENCE {
	document-characteristics	[0]	IMPLICIT Doc-Characteristics OPTIONAL,
	The document chard	cteris	stics attribute contains information describing what kind of document
	is transferred from t	he ori	iginator. The value of the document characteristics attribute is of type
	Doc-Characteristics	defin	ned in 5.17.2.
	communication	[1]	IMPLICIT Communication OPTIONAL }
	The communication	attrib	pute contains routing information. The value of the communication
	attribute is of type C	ommi	unication defined in 5.17.3.
5.17.2	Doc-Characteristics syntax		

The doc-characteristics syntax is defined below:

Doc-Characteristics	::=	SEQUENCE {
document-name	[0]	IMPLICIT GraphicString OPTIONAL,
The document nam	ie attrib	ute indicates the name of the document.
version	[1]	IMPLICIT GraphicString OPTIONAL,
The version attribu	ite indic	cates the version of the document.
document-type	[2]	IMPLICIT GraphicString OPTIONAL,
The document type	attribu	te indicates the category that the document is put into.
edition	[3]	IMPLICIT GraphicString OPTIONAL,
The edition attribu	te indic	ates the edition of the document.
reference	[4]	IMPLICIT GraphicString OPTIONAL,
The reference attri	bute is i	used for setting a code for identifying the document.
subject	[5]	IMPLICIT GraphicString OPTIONAL,
The subject attribu	te indic	ates the topic of the document.
format	[6]	IMPLICIT GraphicString OPTIONAL,
The format attribut	te indica	ates the paper size of the document.
copyrights	[7]	IMPLICIT GraphicString OPTIONAL,
The copyrights attr	ribute in	ndicates who has the copyrights of the document.
keywords	[8]	IMPLICIT GraphicString OPTIONAL,
The keywords attri	bute ind	licates the words representing the contents of the document.
abstract	[9]	IMPLICIT GraphicString OPTIONAL,
The abstract attrib	ute con	tains the summary of the document.
language	[10]	IMPLICIT GraphicString OPTIONAL,
The language attri	bute inc	licates what language is used in the document.
private	[11]	IMPLICIT Private-Use-Attribute OPTIONAL }
The meaning of the	e private	e attribute is not defined. The Private-Use-Attribute syntax is defined
in 5.9.		

2

5.17.3 Communication syntax

The communication syntax is defined below: Communication ::= **SEQUENCE {** general-priority [0] **IMPLICIT Priority DEFAULT {normal},** -- The general priority attribute indicates the general priority of transmitting the document to its -- destinations. The value of the general priority attribute is of type Priority defined -- in 5.17.4. NORMAL is the default value. originator-name [1] IMPLICIT GraphicString OPTIONAL, -- The originator name attribute indicates who originates the document. originator-T30-ID [2] IMPLICIT T30-Identity OPTIONAL, -- The value of the originator -- T30-ID attribute is of type T30-Identity defined in 5.17.5. [3] IMPLICIT Number-of-Fax OPTIONAL, originator-fax-number -- The originator fax number attribute indicates the number of the terminal from which the -- document originates. The value of the originator fax number attribute is of type Number-of-Fax -- defined in 5.17.6. originator-sub-address [4] IMPLICIT Sub-Address OPTIONAL, -- The value of the originator sub-address attribute is of type Sub-Address defined in 5.17.7. [5] IMPLICIT GeneralizedTime OPTIONAL, submission-date -- The submission date attribute indicates when the document is submitted to the store-and-forward -- system. The value of the submission date attribute is of type GeneralizedTime described in 5.5. pages-number [6] IMPLICIT INTEGER OPTIONAL, -- The pages number attribute indicates the total number of pages in the document. [7] IMPLICIT GraphicString OPTIONAL, document-recovery -- The document recovery attribute is used for the reference of the failed previous session. [8] IMPLICIT GraphicString OPTIONAL, password -- The password attribute conveys the word used for authenticating the originator of the document. [9] IMPLICIT SEQUENCE OF Receiving-Fax OPTIONAL, receiving-fax -- The receiving fax attribute contains information about destinations. It is a sequence of -- Receiving-Fax defined in 5.17.8. communication-private [10] Private-Use-Attribute OPTIONAL } -- The meaning of the communication private attribute is not defined. The Private-Use-Attribute is -- defined in 5.9.

5.17.4 Priority syntax

The priority is defined below:

Priority

::= ENUMERATED {

 normal
 (0),

 -- Normal indicates that the priority of transmission is not specified.

 nonurgent
 (1),

 -- Nonurgent indicates that delayed transmission is acceptable.

 urgent
 (2) }

 -- Urgent indicates that the document should be transmit urgently.

5.17.5 T30-Identity syntax

The T30-Identity is defined below:

T30-Identity

::= GraphicString

-- The originator T30-ID attribute is set using the TSI parameter from T.30.

5.17.6 Number of fax syntax

The number of fax is defined below:

Number-of-Fax ::= GraphicString -- Number of fax takes E164 format.

5.17.7 Sub-Address syntax

Sub-Address

The Sub-address is defined below:

```
::= GraphicString
```

-- The originator *sub-address* attribute indicates the *sub-address* of the terminal from which the -- document originates. The syntax of sub-address is defined in T.30.

5.17.8 Receiving fax syntax

The Receiving fax is defined below:

Receiving-Fax fax-number

::= SEQUENCE {

[0] IMPLICIT Number-of-Fax,

-- The fax number attribute indicates the number of the designated terminal. The value of fax -- number is of type Number-of-Fax defined in 5.17.6.

recipient

[1] IMPLICIT SEQUENCE OF Recipient-Information OPTIONAL }

-- The recipient attribute contains information used for communication with the terminals of -- the recipients. It is a sequence of Recipient-Information defined in 5.17.9.

5.17.9 Recipient information syntax

The recipient information is defined below:

Recipient-Information	::=	SEQUENCE {
name	[0]	IMPLICIT GraphicString,
The name attribute is	ndica	tes the name of the recipient.
type	[1]	IMPLICIT Copy DEFAULT {principal},
The type attribute in	dicate	es the priority of the recipient who receives the document.
The value of the type	attril	bute is of type Copy defined in 5.17.10. PRINCIPAL is
the default value.		
priority-of-copy	[2]	IMPLICIT Priority DEFAULT {normal},
The priority of copy	attrib	ute indicates the priority of transmitting the document to the
recipient. The value	of the	priority of copy attribute is of type Priority defined in 5.17.4.
NORMAL is the defa	ult va	llue.
latest-delivery-time	[3]	IMPLICIT GeneralizedTime OPTIONAL,
The latest delivery ti	me at	tribute indicates what time the document should be delivered by.
The value of the late	est del	<i>ivery time attribute is of type GeneralizedTime described in 5.5.</i>
deferred-delivery-time	[4]	IMPLICIT GeneralizedTime OPTIONAL,
The deferred deliver	y time	attribute indicates what time the document should be delivered after.
The value of the defe	rred a	delivery time attribute is of type GeneralizedTime described in 5.5.
sub-addressing-copy	[5]	IMPLICIT Sub-Address-Copy OPTIONAL,
The sub-address cop	y attr	ibute indicates the address information for forwarding. The value of the
sub-address copy att	ribute	e is of type Sub-Address-Copy defined in 5.17.11.
report-request	[6]	IMPLICIT Report DEFAULT {no-report},
The report request a	ttribu	te indicates whether the originator requested to deliver report.
The value of the rep	ort at	tribute is of type Report defined in 5.17.12. NO-REPORT is
the default value.		
complement	[7]	Private-Use-Attribute OPTIONAL}
The meaning of com	vleme	nt attribute is not defined. The Private-Use-Attribute syntax is defined
in 5.9.		
Copy syntax		

The copy is defined below:

5.17.10

4

Сору	::= ENUMERATED {						
principal	(0),						
Prince	al indicates the primary recipient of the document.						
сору	(1),						
Copy	Copy indicates an informational recipient of the document.						
blind-copy	(2),						
Blind	ppy indicates an additional recipient of the document.						
forward	(3) }						
Forwa	d indicates a recipient who is forwarded the document						

5.17.11 Sub-address copy syntax

The sub-address copy is defined below:

 Sub-Address-Copy
 ::=
 CHOICE {

 name
 [0]
 IMPLICIT GraphicString,

 -- The name attribute indicates the recipient name that the document is forwarded to.

 number
 [1]

 IMPLICIT Number-of-Fax,

 -- The number attribute indicates the number that the document is forwarded to. The value of the

 -- number attribute is of type Number-of-Fax defined in 5.17.6.

T30-ID

[2] IMPLICIT T30-Identity,

-- The T30-ID attribute is used for setting parameter from T.30. The value of the

-- T30-ID is of type T30-Identity defined in 5.17.5.

sub-address [3] IMPLICIT Sub-Address,

-- The sub-address attribute indicates sub-addresses that the document is forwarded to.

-- The value of the sub-address attribute is of type Sub-Address defined in 5.17.7.

list [4] IMPLICIT GraphicString,

-- The list attribute is used for broadcasting list that contains forwarding addresses.

short-number [5] IMPLICIT GraphicString,

-- The short number attribute indicates an abbreviated local number such as one touch dial number. reference-number [6] IMPLICIT GraphicString,

(2)

-- The reference number attribute indicates the number that identifies the stored document in -- the store-and-forward system.

}

5.17.12 Report syntax

The report is defined below:

Report

$::= ENUMERATED \{ (0),$

no-report (0), -- *No report indicates that a report is not requested.*

no-delivery-report (1),

- -- No delivery report indicates that a report is requested in the event of that the
- -- document is not delivered completely.

report-requested

-- Report requested indicates that a report is requested.

5.17.13 Delivery information syntax

The delivery information is defined below:

::= IMPLICIT SEQUENCE OF SEQUENCE {
[0] IMPLICIT GeneralizedTime OPTIONAL,
rending attribute is a time stamp the store-and-forward
ve the document from the originating terminal. The value of the date
ttribute is of type GeneralizedTime described in 5.5.
[1] IMPLICIT GraphicString OPTIONAL,
nber attribute indicates the number of the terminal from which the
[2] IMPLICIT INTEGER OPTIONAL,
ute indicates the ordinal number of the file in a series of files.
[3] IMPLICIT INTEGER OPTIONAL,
ribute indicates the total number of the files.
[4] IMPLICIT GraphicString OPTIONAL,
n attribute identifies the final file in a series of files.
[5] IMPLICIT GraphicString OPTIONAL,
lication attribute identifies that the store-and-forward system tried to
than twice.
[6] IMPLICIT GraphicString OPTIONAL,
ttribute indicates the address that is charged for the communication
ard system.
[7] IMPLICIT GraphicString OPTIONAL,
ttribute is used for the fee when the originator makes use of the toll
g service.
[8] IMPLICIT General-Identifier OPTIONAL,
at attribute indicates the files structure when the files were received by the
tem.
[9] IMPLICIT General-Identifier OPTIONAL,
at attribute indicates the files structure when the files were delivered to
store-and-forward system.
tion
[10] IMPLICIT GraphicString OPTIONAL,
gnate indication attribute identifies the scheduled delivery.
[11] IMPLICIT GraphicString OPTIONAL }
te is used for the addressee information.

5

5.18 File and retrieval syntax (for further study)

The File and retrieval attribute is used for archiving, management and manipulation of documents.

file-retrieval

[31] IMPLICIT File-Retrieval-Attribute OPTIONAL

3) Annex A/T.434

Amend the BFT abstract syntax as shown below:

Annex A

BFT abstract syntax definition

BFT-FORMAT { itut(0) recommendation(8) tseries(20) bft(434) version (2)} BEGIN -- EXPORTS Everything **IMPORTS; BINARY-DATA-Message** ::= [APPLICATION 23] **IMPLICIT SEQUENCE OF SEQUENCE {** [28] Protocol-Version DEFAULT {version-1}, protocol-version [0] IMPLICIT Filename-Attribute OPTIONAL, filename IMPLICIT Permitted-Actions-Attribute OPTIONAL, permitted-actions [1] contents-type [2] Contents-Type-Attribute OPTIONAL, -- DEFAULT { UNSTRUCTURED BINARY } -- not specifying this attribute implies that data-file-content -- is unstructured binary storage-account [3] **IMPLICIT GraphicString OPTIONAL**, date-and-time-of-creation [4] IMPLICIT GeneralizedTime OPTIONAL, date-and-time-of-last-modification [5] IMPLICIT GeneralizedTime OPTIONAL, date-and-time-of-last-read-access [6] IMPLICIT Generalized Time OPTIONAL, -- 7 is reserved for date-and-time-of-last-attribute-modification identity-of-creator [8] IMPLICIT GraphicString OPTIONAL, identity-of-last-modifier [9] IMPLICIT GraphicString OPTIONAL, identity-of-last-reader [10] IMPLICIT GraphicString OPTIONAL, -- 11 is reserved for identity-of-last-attribute-modifier -- 12 is reserved for file-availability filesize [13] IMPLICIT INTEGER OPTIONAL, future-filesize [14] IMPLICIT INTEGER OPTIONAL, access-control [15] Access-Control-Attribute OPTIONAL, -- the use of this attribute is for further study legal-qualifications [16] IMPLICIT GraphicString OPTIONAL, private-use [17] Private-Use-Attribute OPTIONAL, [18] IMPLICIT OBJECT IDENTIFIER OPTIONAL, structure application-reference [19] General-Identifier OPTIONAL, [20] IMPLICIT SEQUENCE OF GraphicString OPTIONAL, machine [21] IMPLICIT OBJECT IDENTIFIER OPTIONAL, operating-system [22] IMPLICIT SEQUENCE OF GraphicString OPTIONAL, recipient character-set [23] IMPLICIT OBJECT IDENTIFIER OPTIONAL, [24] General-Identifier OPTIONAL, compression -- Indicates an optional compression applied to the content -- octets of the attribute data-file-content [25] IMPLICIT SEQUENCE OF GraphicString OPTIONAL, environment pathname [26] IMPLICIT SEQUENCE OF GraphicString OPTIONAL, store-and-forward [27] IMPLICIT Store-And-Forward-Attribute OPTIONAL, user-visible-string [29] IMPLICIT SEQUENCE OF GraphicString OPTIONAL, [31] IMPLICIT File-Retrieval-Attribute OPTIONAL, file-retrieval -- the use of this attribute is for further study data-file-content [30] CHOICE ::= {EXTERNAL, ANY OPTIONAL }

Contents-Type-Attribute ::= -- See Annex B of ISO 8571-2 for more information

See Annex B of ISO 8571-2 for mor	e info	
		CHOICE {
document-type-name		[1] OBJECT IDENTIFIER,
parameter		[0] ANY OPTIONAL }
The actual types to be used for	· valu	es of the parameter field are defined in the document-type-name.
They may consist of an object	identi	ifier assigned to the document type, or be
UNSTRUCTURED TEXT.		
Entity-Reference		::= INTEGER {
no-categorization-possible		(0),
initiating-file-service-user		(1),
initiating-file-protocol-machine		(2),
service-supporting-the-file-protoco	I-mac	
responding-file-protocol-machine		(4),
responding-file-service-user		(5) }
Filename-Attribute	::=	SEQUENCE OF GraphicString
General-Identifier	::=	CHOICE { OBJECT IDENTIFIER,
General-Identifier	••-	IMPLICIT SEQUENCE OF GraphicString }
		INTELETT SEQUENCE OF Graphicsting ;
Password	::=	CHOICE { GraphicString,
		OCTET STRING }
Permitted-Actions-Attribute	::=	BIT STRING {
Actions available	••-	
Actions available read		
insert		(0), (1),
replace		(1), (2),
extend		(3),
erase		(3), (4) } (size (22))
Private-Use-Attribute	••=	SEQUENCE {
		ufacturer-values [0] ANY OPTIONAL}
Protocol-Version	::=	IMPLICIT BIT STRING { version-2 (1) }
User-Identity	::=	GraphicString
Store-And-Forward-Attribute	::=	SEQUENCE {
store-and-forward-request	[0]	
delivery-information	[1]	IMPLICIT Delivery-Information OPTIONAL }
Store-And-Forward-Request		SEQUENCE {
document-characteristics	[0]	IMPLICIT Doc-Characteristics OPTIONAL,
communication	[1]	IMPLICIT Communication OPTIONAL }
Doc-Characteristics	::=	SEQUENCE {
document-name	[0]	IMPLICIT GraphicString OPTIONAL,
version	[1]	IMPLICIT GraphicString OPTIONAL,
document-type	[2]	IMPLICIT GraphicString OPTIONAL,
edition	[3]	IMPLICIT GraphicString OPTIONAL,
reference	[4]	IMPLICIT GraphicString OPTIONAL,
subject	[5]	IMPLICIT GraphicString OPTIONAL,
format		IMPLICIT GraphicString OPTIONAL,
copyrights		IMPLICIT GraphicString OPTIONAL,
keywords		IMPLICIT GraphicString OPTIONAL,
abstract		IMPLICIT GraphicString OPTIONAL,
language		IMPLICIT GraphicString OPTIONAL,
private	[11]	IMPLICIT Private-Use-Attribute OPTIONAL }
Communication	::=	SEQUENCE {
general-priority	[0]	IMPLICIT Priority DEFAULT {normal},
originator-name	[1]	IMPLICIT GraphicString OPTIONAL,
originator-T30-ID	[2]	IMPLICIT T30-Identity OPTIONAL,
originator-fax-number	[3]	IMPLICIT Number-of-Fax OPTIONAL,
originator-sub-address		IMPLICIT Sub-Address OPTIONAL,
submission-date	[5]	IMPLICIT GeneralizedTime OPTIONAL,
pages-number	[6]	IMPLICIT INTEGER OPTIONAL,
document-recovery	[7]	IMPLICIT GraphicString OPTIONAL,
password	[8]	IMPLICIT GraphicString OPTIONAL,

receiving-fax communication-private		IMPLICIT SEQUENCE OF Receiving-Fax OPTIONAL, Private-Use-Attribute OPTIONAL }
Priority	::=	ENUMERATED {
Priority takes following status:		
normal		(0),
nonurgent		(1),
urgent		(2)
T30-Identity	::=	GraphicString
Number-of-Fax	::=	GraphicString
Sub-Address	::=	GraphicString
Receiving-Fax	::=	SEQUENCE {
fax-number	 [0]	IMPLICIT Number-of-Fax,
recipient	[U] [1]	IMPLICIT Number-of-rax, IMPLICIT SEQUENCE OF Recipient-Information OPTIONAL
recipient	[1]	INFLICIT SEQUENCE OF Recipient-Information OF HONAL
Recipient-Information	::=	SEQUENCE {
name	[0]	IMPLICIT GraphicString,
type	[1]	IMPLICIT Copy DEFAULT {principal},
priority-of-copy	[2]	IMPLICIT Priority DEFAULT {normal},
latest-delivery-time	[3]	IMPLICIT GeneralizedTime OPTIONAL,
deferred-delivery-time	[4]	IMPLICIT GeneralizedTime OPTIONAL,
sub-addressing-copy	[5]	IMPLICIT Sub-Address-Copy OPTIONAL,
report-request	[6]	IMPLICIT Report DEFAULT {no-report},
compliment	[7]	Pivate-Use-Attribute OPTIONAL}
Сору	::=	ENUMERATED {
Copy takes following status:		
principal		(0),
сору		(1),
blind-copy		(2),
forward		(3) }
Sub-Address-Copy	::=	CHOICE {
name	[0]	IMPLICIT GraphicString,
number	[1]	IMPLICIT Number-of-Fax,
T30-ID	[2]	IMPLICIT T30-Identity,
sub-address	[3]	IMPLICIT Sub-Address,
list		IMPLICIT GraphicString,
name or broadcast list number		,
short-number	[5]	IMPLICIT GraphicString ,
reference-number	[6]	IMPLICIT GraphicString,
	[0]	}
Report	::=	ENUMERATED {
no-report		(0),
no-delivery-report		(1),
report-requested		(2) }
Delivery-Information	::=	IMPLICIT SEQUENCE OF SEQUENCE {
date-and-time-of-sending	[0]	IMPLICIT GeneralizedTime OPTIONAL,
originator-fax-number	[1]	IMPLICIT GraphicString OPTIONAL,
file-number	[2]	IMPLICIT INTEGER OPTIONAL,
whole-number	[3]	IMPLICIT INTEGER OPTIONAL,
last-file-indication	[4]	IMPLICIT GraphicString OPTIONAL,
delivery-re-try-indication	[5]	IMPLICIT GraphicString OPTIONAL,
charge-address	[6]	IMPLICIT GraphicString OPTIONAL,
information-fee	[7]	IMPLICIT GraphicString OPTIONAL,
	[8]	IMPLICIT General-Identifier OPTIONAL,
original-file-format		
original-file-format terminal-file-format		
original-file-format terminal-file-format delivery-time-designate-indication	[9]	IMPLICIT General-Identifier OPTIONAL, IMPLICIT GraphicString OPTIONAL,

END

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- Series A Organization of the work of the ITU-T
- Series B Means of expression: definitions, symbols, classification
- Series C General telecommunication statistics
- Series D General tariff principles
- Series E Overall network operation, telephone service, service operation and human factors
- Series F Non-telephone telecommunication services
- Series G Transmission systems and media, digital systems and networks
- Series H Audiovisual and multimedia systems
- Series I Integrated services digital network
- Series J Transmission of television, sound programme and other multimedia signals
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- Series P Telephone transmission quality, telephone installations, local line networks
- Series Q Switching and signalling
- Series R Telegraph transmission
- Series S Telegraph services terminal equipment
- Series T Terminals for telematic services
- Series U Telegraph switching
- Series V Data communication over the telephone network
- Series X Data networks and open system communications
- Series Y Global information infrastructure
- Series Z Programming languages