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SERIES T: TERMINALS FOR TELEMATIC SERVICES

**Facsimile code points for use with
Recommendations V.8 and V.8 *bis***

ITU-T Recommendation T.66

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Facsimile code points for use with Recommendations V.8 and V.8 *bis*

Summary

This Recommendation defines the coding to be used in V.8 and V.8 *bis* negotiation to enable the selection of T.30 facsimile related capabilities.

Source

ITU-T Recommendation T.66 was revised by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 March 2002.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. 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 Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 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, 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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ITU-T Recommendation T.66

Facsimile code points for use with Recommendations V.8 and V.8 bis

1 Scope

This Recommendation defines the code points reserved in ITU-T Recs. V.8 and V.8 bis for T.30 facsimile applications and further defines in successive octets the capabilities that may be negotiated.

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; 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.

- ITU-T Recommendation H.324 (1996), *Terminal for low bit-rate multimedia communication*.
- ITU-T Recommendation T.30 (1996), *Procedures for document facsimile transmission in the general switched telephone network*.
- ITU-T Recommendation T.39 (1997), *Application profiles for simultaneous voice and facsimile terminals*.
- ITU-T Recommendation V.8 (2000), *Procedures for starting sessions of data transmission over the public switched telephone network*.
- ITU-T Recommendation V.8 bis (2000), *Procedures for the identification and selection of common modes of operation between data circuit-terminating equipments (DCEs) and between data terminal equipments (DTEs) over the public switched telephone network and on leased point-to-point telephone-type circuits*.
- ITU-T Recommendation V.34 (1998), *A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits*.
- ITU-T Recommendation V.61 (1996), *A simultaneous voice plus data modem, operating at a voice plus data signalling rate of 4800 bit/s, with optional automatic switching to data-only signalling rates of up to 14 400 bit/s, for use on the general switched telephone network and on leased point-to-point 2-wire telephone type circuits*.
- ITU-T Recommendation V.70 (1996), *Procedures for the simultaneous transmission of data and digitally encoded voice signals over the GSTN, or over a 2-wire leased point-to-point telephone type circuits*.

3 Abbreviations

This Recommendation uses the following abbreviations:

ASVF	Analogue simultaneous voice and facsimile communication
CCITT	International Telegraph and Telephone Consultative Committee
DSVF	Digital simultaneous voice and facsimile communication

GSTN	General Switched Telephone Network
ISO	International Organization for Standardization
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
MS	Mode Select

4 Introduction

ITU-T Recs. V.8 and V.8 *bis* define code points used in negotiating capabilities during connection establishment procedures. Certain of these codes have been reserved for definition and use by ITU-T.

This Recommendation defines the code points as dedicated to T.30 facsimile and related applications and further defines in successive octets the capabilities that may be negotiated.

5 Code points used with V.8 procedures

5.1 Coding for V.8 information categories

Table 1 shows the bits b5, b6 and b7 on line 8 reserved for facsimile function in Table 2/V.8. These bits are used to define the call function categories.

Table 1/T.66 – Information categories

Start	b0	b1	b2	b3	b4	b5	b6	b7	Stop	Category octets (b4 = 0) with category given by tag b0-b3
0	1	0	0	0	0	x	x	x	1	Call function
0	1	0	1	0	0	x	x	x	1	Modulation modes
0	0	1	0	1	0	x	x	x	1	Protocols
0	1	0	1	1	0	x	x	x	1	PSTN access
0	1	1	1	1	0	x	x	x	1	Non-standard facilities
0	1	1	1	0	0	x	x	x	1	PCM modem availability
0	0	1	1	1	0	x	x	x	1	Facsimile function, defined in Table 2

Table 2 shows the call function categories defined by ITU-T 16.

Table 2/T.66 – The facsimile function category

Start	b0	b1	b2	b3	b4	b5	b6	b7	Stop	Octet –"callf0"	ITU-T Rec. Reference
0	0	1	1	1						Tag b0-b3 indicating the facsimile function category	
					0					Indicates a category octet	
								x		Reserved for future use (Note)	
							x			Reserved for future use (Note)	

Table 2/T.66 – The facsimile function category

Start	b0	b1	b2	b3	b4	b5	b6	b7	Stop	Octet – "callf0"	ITU-T Rec. Reference
						x				Reserved for experimental use by the Telecommunications Industry Association (USA)	
									1	Stop bit	
NOTE – Reserved bits, when sent, should be set to 0 and ignored by the receiver.											

6 Code points used with V.8 *bis* procedures

6.1 Coding for the Standard Information Field

Bit 5 of Table 6-2/V.8 *bis* (Standard Information Field – {SPar(1)} Coding) is indicated for use as "T.30 facsimile". The accompanying Note specifies that the Level 2 and 3 Pars associated with this SPar(1) are reserved for allocation by ITU-T.

Table 3 defines the label of Bit 5 of Table 6-2/V.8 *bis* (Standard Information Field – {SPar(1)} Coding) as T.30 Facsimile.

Table 3/T.66 – Standard Information Field – {SPar(1)} coding

SPar(1)s	8	7	6	5	4	3	2	1
Defined in ITU-T Rec. V.8 <i>bis</i>	x	x	x	x	x	x	x	1
Defined in ITU-T Rec.V.8 <i>bis</i>	x	x	x	x	x	x	1	x
Defined in ITU-T Rec.V.8 <i>bis</i>	x	x	x	x	x	1	x	x
Defined in ITU-T Rec.V.8 <i>bis</i>	x	x	x	x	1	x	x	x
T.30 Facsimile	x	x	x	1	x	x	x	x
Defined in ITU-T Rec.V.8 <i>bis</i>	x	x	1	x	x	x	x	x
Defined in ITU-T Rec.V.8 <i>bis</i>	x	1	x	x	x	x	x	x
Defined in ITU-T Rec.V.8 <i>bis</i>	x	0	0	0	0	0	0	0

6.2 Coding for the Standard Information Field – T.30 facsimile

The coding of the first octet of the NPar(2) coding is shown in Table 4 codes. The T.30 procedures code point is applicable in the case where V.8 *bis* is used with facsimile/telephone switching (OutGoing Message – OGM) and no V.8 is forthcoming, i.e. T.30 modulation schemes that do not depend on V.8 for initiation. The other code point contains the modulation types which could be indicated with V.8 *bis* in the facsimile environment.

Table 4/T.66 – Standard Information Field – T.30 facsimile {NPar(2)} coding – Octet 1

NPar(2)s	8	7	6	5	4	3	2	1
T.30 procedures (without V.8)	x	x	x	x	x	x	x	1
V.34 (half duplex mode)	x	x	x	x	x	x	1	x
V.34 (duplex mode)	x	x	x	x	x	1	x	x
V.61 (ASVF)	x	x	x	x	1	x	x	x
V.70 (DSVF)	x	x	x	1	x	x	x	x
Non-standard capabilities	x	x	1	x	x	x	x	x
No parameters in this octet	x	x	0	0	0	0	0	0

The coding of second octet of the Group 3 facsimile Standard Information Field is used to indicate other capabilities, as shown in Table 5 codes.

Table 5/T.66 – Standard Information Field – T.30 facsimile {NPar(2)} coding – Octet 2

NPar(2)s	8	7	6	5	4	3	2	1
H.324 (MSVF)	x	x	x	x	x	x	x	1
Extended negotiation method	x	x	x	x	x	x	1	x
MS initiated session (Note)	x	x	x	x	x	1	x	x
Reserved for experimental use by the Telecommunications Industry Association (USA)	x	x	x	x	1	x	x	x
Reserved for allocation by ITU-T	x	x	x	1	x	x	x	x
Reserved for allocation by ITU-T	x	x	1	x	x	x	x	x
No parameters in this octet	x	x	0	0	0	0	0	0
NOTE – Session initiated by the responding terminal.								

Appendix I

Procedure for the assignment of additional T.66 parameters

I.1 Introduction

This appendix defines the procedure for requesting the assignment of T.66 parameters that are indicated as being "Reserved for allocation by the ITU-T". This procedure is intended to allow for the expedient assignment of such parameters.

This procedure does not cover requests for changes to the information category octets (which requires approval by ITU-T), or changes to the overall structure of ITU-T Rec. T.66 (which requires application of the ITU-T Resolution 1 procedures).

I.2 Procedure

An ITU-T working party or study group that identifies a need for the assignment of a T.66 parameter initiates the procedure by making that request to the Chairman of the Study Group responsible for ITU-T Rec. T.66 with copies of the request to the Rapporteur of ITU-T Rec. T.66 and the appropriate TSB Counsellor. After consultation with the Rapporteur of ITU-T Rec. T.66, the Chairman will either approve the request or provide an alternative solution to the request (if a change is necessary to achieve compliance with ITU-T Rec. T.66). It is expected that requests using this procedure will obtain a response within one month. The changes should be published in an Implementor's Guide to ITU-T Rec. T.66.

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