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**T.563**

**Amendment 2**

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SERIES T: TERMINALS FOR TELEMATIC SERVICES

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Terminal characteristics for Group 4 facsimile  
apparatus

**Amendment 2: Annex C – T.30 frames for G4  
facsimile**

ITU-T Recommendation T.563 – Amendment 2

(Previously CCITT Recommendation)

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**TERMINALS FOR TELEMATIC SERVICES**

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# **ITU-T Recommendation T.563**

## **TERMINAL CHARACTERISTICS FOR GROUP 4 FACSIMILE APPARATUS**

### **AMENDMENT 2**

#### **ANNEX C**

##### **T.30 frames for G4 facsimile**

### **Summary**

This Amendment defines the introduction of new optional signals into G4 Facsimile. These signals are SUB (Subaddress), SEP (Selective Polling), PWD (Password), SID (Sender ID), PSA (Polled Subaddress) and FNV (Field Not Valid) defined in Recommendation T.30 as signals of G3 Facsimile.

For introducing these signals, similar optional service as G3 Facsimile can be used on G4 Facsimile in common.

### **Source**

Amendment 2 to ITU-T Recommendation T.563, was prepared by ITU-T Study Group 8 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 16th of October 1997.

## FOREWORD

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## **Introduction and background**

This Annex describes definitions of the following new six signals. SUB, SEP and PWD have the same meaning which have been defined in Recommendation T.30 as signals of G3 Facsimile; and SID, PSA and FNV are the same which have been decided to introduce into G3 Facsimile at the February 1997 meeting of Study Group 8.

## TERMINAL CHARACTERISTICS FOR GROUP 4 FACSIMILE APPARATUS

### AMENDMENT 2

#### ANNEX C

#### **T.30 frames for G4 facsimile**

*(Geneva, 1997)*

*Add Annex C as follows:*

#### **C.1 Scope**

This Annex shows an algorithm of introduction of T.30 frames into G4 facsimile protocol.

#### **C.2 References**

- ITU-T Recommendation T.30 (1996), *Procedures for document facsimile transmission in the general switched telephone network. See subclause 5.3.6: "Information field"*.
- ITU-T Recommendation T.62 (1993), *Control procedures for teletex and Group 4 facsimile services*.
- ITU-T Recommendation T.62 bis (1993), *Control procedures for teletex and Group 4 facsimile services based on Recommendations X.215 and X.225*.

#### **C.3 Terms and definitions**

This annex defines the following terms:

**C.3.1 Subaddress (SUB):** This optional signal indicates a subaddress in the called subscribers domain. It may be used to provide additional routing information in the facsimile procedure.

**C.3.2 Selective Polling (SEP):** This optional signal indicates:

- a) a subaddress for the polling mode; or
- b) a specific document number.

**C.3.3 Password (PWD):** This optional signal indicates a password for the polling mode. It may be used to provide additional security to the facsimile procedure.

**C.3.4 Polled Subaddress (PSA):** This optional signal indicates a subaddress for polling.

**C.3.5 Sender Identification (SID):** This optional signal indicates the sender identity.

**C.3.6 Field Not Valid (FNV):** This optional signal indicates that the last received SUB, SEP, PWD, PSA or SID (or any combination of these) is invalid or not accepted.

## C.4 Abbreviations

This Annex uses the following abbreviations:

CDCL	Command Document Capability List
DAP	Document Application Profile
PIX	Pixel
RDCLP	Response Document Capability List Positive
SUD	Session User Data

## C.5 New frame mechanisms

### C.5.1 Negotiation of sending T.30 frame

When G4 facsimile expects to send frames defined in Table C.1/T.563, similar to those in T.30, it should negotiate with DAP "0209H". DAP "02H" means G4 facsimile and DAP "09H", which will be defined newly, means T.30 frame.

**Table C.1/T.563 – List of tag for T.30 frame features**

Code of tag	Name of tag (Note 2)
1100 0001	SUB_TAG
1100 0010	SEP_TAG
1100 0011	PWD_TAG
1100 0100	PSA_TAG
1100 0101	SID_TAG
1100 0110	FNV_TAG (Note 1)
NOTE 1 – This tag can be used only in RDCLP.	
NOTE 2 – Other additional tags may be added in accordance with T.30 in the future.	

### C.5.2 Format of SUD in CDCL

The above defined DAP "09H" means that the following frame features of T.30 may be set in CDCL.

Two-byte-length area should follow a TAG code and indicate the length of the following code. This length can indicate the range of 0-65535 bytes.

Two examples of SUD format will be shown as follows.

#### Example 1: SUB + SID

Session User Data	SUD Length	SUB_TAG	Length	SUB code	SID_TAG	Length	SID code
PGI (0xC1)	(46)	(0xC1)	(20)		(0xC5)	(20)	

#### Example 2: SEP + PWD

Session User Data	SUD Length	SEP_TAG	Length	SEP code	PWD_TAG	Length	PWD code
PGI (0xC1)	(46)	(0xC2)	(20)		(0xC3)	(20)	



### C.5.3 Format of SUD in RDCLP

RDCLP can notify that the frame in CDCL is acceptable by setting a Length of the corresponding tag to "0", which is defined in Table C.1/T.563. While, the corresponding tag code will not be set in RDCLP when a frame indicated in CDCL is not acceptable. When a received data is invalid, a diagnostic information may be sent with FNV\_TAG complying with T.30 FNV algorithm.

#### Example 1

This example shows SUD format which is notified in RDCLP that "SUB + SID" are acceptable when receiving them in CDCL.

Session User Data PGI (0xC1)	SUD Length (6)	SUB_TAG (0xC1)	Length (0x0000)	SID_TAG (0xC5)	Length (0x0000)
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#### Example 2

This example shows SUD format which is notified with FNV\_TAG of RDCLP that received "SUB" in CDCL is invalid.

Session User DATA PGI (0xC1)	SUD Length (4)	FNV_TAG (0xC6)	Length (0x0001)	Reason Octets (0x04)
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NOTE – Reason Octets "0x04" means "Subaddress (SUB) not known".

### C.5.4 Contents of T.30 frame in G4 protocol

The available code of frames complies with Table 3/T.30 and its length is fixed 20 digits long.

The application of T.33 (Facsimile routing utilizing the subaddress) is for further study.

#### Example

A format example of SUB with "123" is shown as follows.

```

C1          : SESSION USER DATA
17          : Length of SUD
C1          : SUB_TAG
00 }
14 }       : Length of SUB (2 bytes)
20          : Space code
☛          : total 17 Space codes
20          : Space code
31          : "1" in the most significant digit of the figure "123"
32          : "2" in the second digit of the figure "123"
33          : "3" in the least significant digit of the figure "123"

```

### C.5.5 Protocol example

Typical signal flows are shown as follows when sending SUB/SEP/PWD/SID.

**C.5.5.1** When SUB + SID are acceptable:

<b>Calling side</b>		<b>Called side</b>
-----	CSS (DAP:0209H)	----->
<-----	RSSP (DAP:0209H)	-----
-----	CDCL (SUB + SID)	----->
<-----	RDCLP (SUB + SID available)	-----
-----	CDCL (DAP:02H)	----->
<-----	RDCLP (DAP:02H)	-----
-----	CDS (DAP:02H)	----->
	PIX	
-----	CDE	----->
<-----	RDEP	-----

**C.5.5.2** When SEP + PWD are acceptable:

<b>Calling side</b>		<b>Called side</b>
-----	CSS (DAP:0209H)	----->
<-----	RSSP (DAP:0209H)	-----
-----	CDCL (SEP + PWD)	----->
<-----	RDCLP (SEP + PWD available)	-----
-----	CSCC	----->
<-----	RSCCP	-----
<-----	CDCL (DAP:02H)	-----
-----	RDCLP (DAP:02H)	----->
<-----	CDS (DAP:02H)	-----
	PIX	
<-----	CDE	-----
-----	RDEP	----->

**C.5.5.3** When only SID is not acceptable in reply to SUB + SID:

<b>Calling side</b>		<b>Called side</b>
-----	CSS (DAP:0209H)	----->
<-----	RSSP (DAP:0209H)	-----
-----	CDCL (SUB + SID)	----->
<-----	RDCLP (SUB available)	-----
-----	CSE	----->
<-----	RSEP	-----

**C.5.5.4** When diagnostic information related to SEP FIF is sent in reply to SEP + PWD:

<b>Calling side</b>		<b>Called side</b>
-----	CSS (DAP:0209H)	----->
<-----	RSSP (DAP:0209H)	-----
-----	CDCL (SEP + PWD)	----->
<---	RDCLP (PWD available + FNV "SEP not known")	---
-----	CSE	----->
<-----	RSEP	-----

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