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TERMINALS FOR TELEMATIC SERVICES

COMMUNICATION APPLICATION PROFILE BT0 FOR DOCUMENT BULK TRANSFER BASED ON THE SESSION SERVICE

ITU-T Recommendation T.521

(Previously "CCITT Recommendation")

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 (Helsinki, March 1-12, 1993).

ITU-T Recommendation T.521 was revised by ITU-T Study Group 8 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 11th of November 1994.

NOTE

this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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SUMMARY

Recommendation this defines communication application profile for G4 facsimile apparatus. The definition of «additional document characteristics» in «application capabilities» for colour and other extension is added as an option in this revision.

Recommendation T.521**COMMUNICATION APPLICATION PROFILE BT0 FOR DOCUMENT
BULK TRANSFER BASED ON THE SESSION SERVICE***(Geneva, 1992; revised in Geneva 1994)***1 Scope and field of application**

This Recommendation defines the communication application profile for the document bulk transfer using the session service defined in Recommendation T.62 *bis* in terms of:

- a) DTAM functional units used;
- b) DTAM service primitives and parameters used;
- c) lower layer X.215 session service mapping according to the rules of Recommendation T.62 *bis*.

2 References

The following references are required in order to implement the communication profile defined in this Recommendation.

- CCITT Recommendation T.431 (1992), *Document Transfer and Manipulation (DTAM) – Services and Protocol – Introduction and General Principles*.
- CCITT Recommendation T.432 (1992), *Document Transfer and Manipulation (DTAM) – Services and Protocols – Service Definition*.
- CCITT Recommendation T.433 (1992), *Document Transfer and Manipulation (DTAM) – Services and Protocols – Protocol Specification*.
- Recommendation T.62 (1993), *Control procedures for teletex and group 4 facsimile services*.
- Recommendation T.62 *bis* (1993), *Control procedures for teletex and G4 facsimile services based on Recommendations X.215 and X.225*.
- Recommendation X.215 (1994), *Information technology – Open Systems Interconnection – Session service definition*.

3 Definitions

The definitions in the T.400-Series Recommendations and Recommendation T.62 *bis* also apply to this Recommendation.

4 Abbreviations and conventions

The abbreviations and conventions defined in the T.400-Series Recommendations and Recommendation T.62 *bis* also apply to this Recommendation.

5 Definition of communication application profile BT0

5.1 Overview of BT0

This Recommendation defines functional units and communication support functions in accordance with Recommendation T.431. BT0 uses the document bulk transfer in transparent mode (mapping to session service as defined in the T.430-Series Recommendations).

5.2 DTAM functional units

The following functional units defined in Recommendation T.432 are used for BT0:

- association use control (Kernel);
- capability;
- document bulk transfer;
- token control.

NOTE – The capability functional unit must be supported in this profile, but it is not required to use this service prior to every document transfer (D-TRANSFER).

5.3 DTAM service primitives and lower layer mapping

5.3.1 DTAM service primitives and parameters

The general DTAM service definition and parameters are defined in Recommendation T.432. This subclause specifies the parameters of the DTAM service for BT0.

5.3.1.1 D-INITIATE service parameters

The following parameters of this service are used as follows:

- transparent mode;
- telematic requirements;
- application capabilities;
- result.

Table 1-A lists the D-INITIATE service parameters.

1) *Transparent mode*

This parameter shall be present in the D-INITIATE request service primitive.

2) *Telematic requirements*

The following functional units defined in Recommendation T.432 are used for BT0 as mandatory functional units:

- association use control (Kernel);
- capability;
- document bulk transfer;
- token control.

3) *Application capabilities*

This “Application capabilities” parameter is defined in Recommendation T.432 and the following sub-parameter is used:

ODA Application capabilities:

a) Document application profile

The value of this parameter indicates the document application profile being used. Its value is specified in Recommendations that define terminal characteristics for particular Telematic profiles.

b) Document architecture class

The value of this parameter indicates the document architecture class used in the entire association. The use of this parameter and its possible value is specified in the Recommendations that define terminal characteristics for particular Telematic services.

4) *Result*

This result field can take the values defined in Recommendation T.432.

TABLE 1-A/T.521
D-INITIATE service parameters

	D-INITIATE request	D-INITIATE indication	D-INITIATE response	D-INITIATE confirm
Transparent mode	M			
Telematic requirements	M	M(=)	C ^{a)}	C(=)
ODA Application capabilities	M	M(=)	C ^{a)}	C(=)
Document application profile	M	M(=)	C ^{a)}	C(=)
Document architecture class	M	M(=)	C ^{a)}	C(=)
Result			M	M(=)
a) This parameter is mandatory in case the responder returns the "accepted" result parameter to the proposed requirements.				

5.3.1.2 D-TERMINATE service parameters

This service has no parameter for BT0. Only the initiator can issue D-TERMINATE service. In addition, the initiator can issue D-TERMINATE service only if he has the data token.

5.3.1.3 D-U-ABORT service parameters

This service has no parameter.

5.3.1.4 D-P-ABORT service parameter

This service has no parameter.

5.3.1.5 D-CAPABILITY service parameters

This service has the sub-parameter "ODA Application capabilities" which consists of the following parameters:

- document application profile;
- document architecture class;
- non-basic document characteristics;
- additional document characteristics.

Table 1-B lists the D-CAPABILITY service parameters.

1) *Application capabilities*

See 5.3.1.1.

ODA Application capabilities:

a) Document application profile

See 5.3.1.1.

b) Document architecture class

See 5.3.1.1.

c) Non-basic document characteristics

This is the parameter "Non-basic document characteristics" defined in Recommendation T.432.

d) Additional document characteristics

This is the parameter "Additional document characteristics" defined in Recommendation T.432.

e) File transfer capabilities

This is the parameter "File transfer capabilities" defined in Recommendation T.432.

f) Private capabilities

This is the parameter "Private capabilities" defined in Recommendation T.432.

TABLE 1-B/T.521
D-CAPABILITY service parameters

	D-CAPABILITY request	D-CAPABILITY indication	D-CAPABILITY response	D-CAPABILITY confirm
ODA Application capabilities				
Document application profile	M	M(=)	M	M(=)
Document architecture class	M	M(=)	M	M(=)
Non-basic document characteristics	U	C(=)	U	C(=)
Additional document characteristics	U	C(=)	U	C(=)
File transfer capabilities	U	C(=)	U	C(=)
Private capabilities	U	C(=)	U	C(=)

5.3.1.6 D-TRANSFER service parameters

This service has the following parameters:

1) *Document information*

This parameter consists of the interchange data elements representing the document. The "Document characteristics" from the document profile are transferred using S-ACT-START service.

All interchange data elements, except the document profile descriptor, are transferred using S-DATA services. The document profile is reconstructed by the received DTAM-PM, on the basis of the "Document characteristics" transferred in the S-ACT-START service.

2) *Document information type*

This parameter has the value "transfer of a document from its beginning" in the request primitive (see Recommendation T.432). For the indication and confirm primitive, the value is either "transfer completed" or "transfer not completed".

3) *Document reference information*

The value of this parameter is to be provided by the DTAM user in accordance with the rules specified in Recommendation T.432.

4) *Result*

This parameter has one of the values "document information transferred" or "document information not completely transferred", as defined in Recommendation T.432.

NOTE – The parameter value "document-information-continuation not possible" is for further study.

5) *Checkpoint value*

This parameter is used as defined in Recommendation T.432. The number of IDE per segment is integer 2. However, the document profile and the document root are not counted (see Figure 1). In the file transfer function, this parameter is used as defined in Recommendation T.432 (see Figure 2).

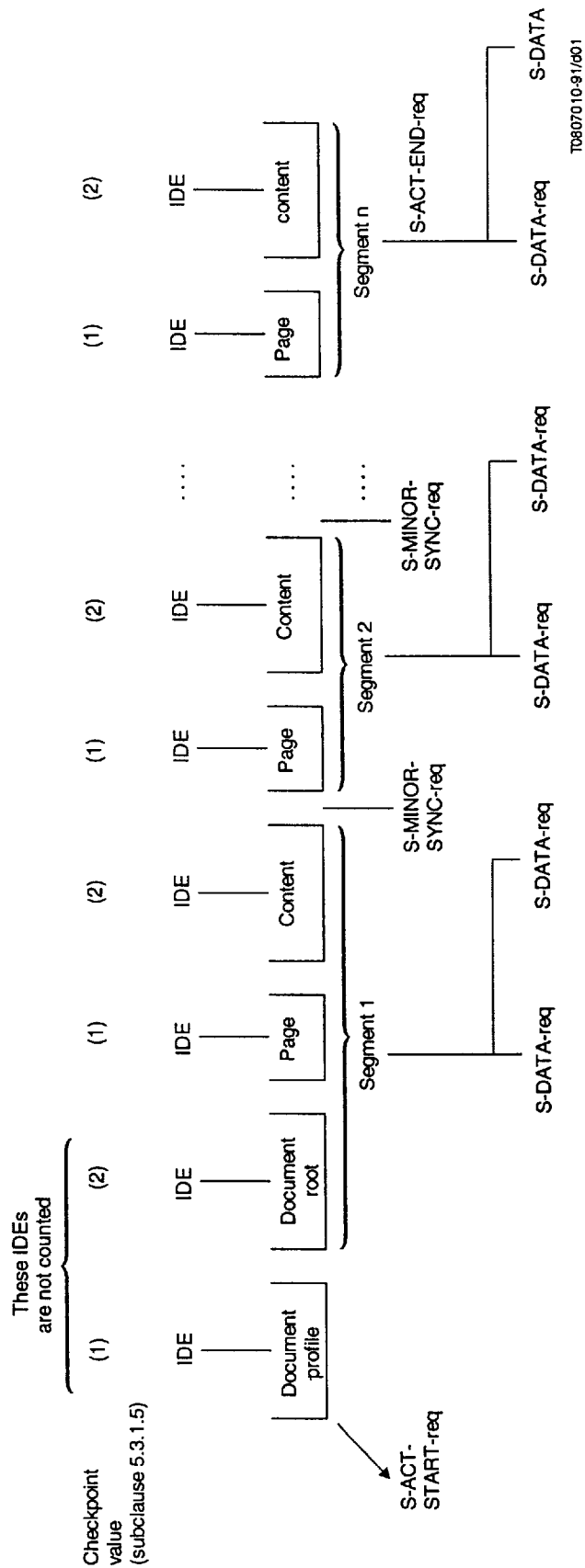


FIGURE 1/T.521
Application of the segmenting mechanism as defined in Figure 2/T.433