

ANNEX A

(to Recommendation T.433)

Reliable transfer modes

(Informative)

The following figures show the examples of protocol sequence for the reliable transfer modes.

FIGURE A-1/T.433

**Transfer procedure (transfer-discard procedure)
(reliable transfer mode 1)**

FIGURE A-2/T.433

**Transfer procedure (transfer-interrupt procedure) and
transfer-user-resume procedure
(reliable transfer mode 1)**

FIGURE A-3/T.433

**Transfer procedure (transfer-interrupt procedure) and
transfer-resume procedure (reliable transfer mode 2)**

FIGURE A-4/T.433

**Transfer procedure, transfer-interrupt procedure,
transfer-resume procedure and transfer time out
(reliable transfer mode 2)**

ANNEX B

(to Recommendation T.433)

DTAM-PM state tables

(transparent mode/reliable transfer mode 1)

This Annex forms an informal part of this Recommendation. This Annex is just for reference. Further study is required.

B.1 General

This Annex defines a single DTAM Protocol Machine (DTAM-PM) in terms of a state table. The state table shows the interrelationship between the state of an application-association, the incoming events that occur in the protocol, the actions taken, and finally, the resultant state of the application-association.

The DTAM-PM state table does not constitute a formal definition of a DTAM-PM. It is included to provide a more precise specification of the elements of procedure defined in § 6.

This Annex contains the following tables:

- a) Table B-1/T.433 specifies the abbreviated name, source, and name/description of each incoming event. The sources are:
 - 1) DTAM-SE-user (DTAM-SE-user);
 - 2) peer DTAM-PM (DTAM-PM-peer);
 - 3) session service provider (SS-provider);
 - 4) DTAM-PM (DTAM-PM).
- b) Table B-2/T.433 specifies the abbreviated name of each state of the DTAM-PM.
- c) Table B-3/T.433 specifies the abbreviated name, target, and name/description of each outgoing event. The targets are:
 - 1) DTAM-SE-user (DTAM-SE-user);
 - 2) peer DTAM-PM (DTAM-PM-peer);
 - 3) session service provider (SS-provider);
 - 4) DTAM-PM (DTAM-PM).
- d) Table B-4/T.433 specifies the predicates;
- e) Table B-5/T.433 specifies the specific actions;
- f) Table B-6/T.433 through B-14/T.433 including specifies the DTAM-PM state table using the abbreviations of the above tables.

For some events the source and the target is the DTAM-PM (internal event). If the DTAM-PM issues an internal

event as part of an action taken, the DTAM-PM awaits that internal event in the resultant state.

TABLE B-1/T.433 (part 1 of 3)

Incoming event list

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	Abbreviated name	Source	Name and description
	D-CAPreq	DTAM-SE-user	D-CAPABILITY request primitive
	D-CAPres+	DTAM-SE-user	D-CAPABILITY response primitive (Result = "accepted")
D-CAPres _{w-w}	DTAM-SE-user	D-CAPABILITY	response primitive (Result = "rejected")
	D-INTreq	DTAM-SE-user	D-INITIATE request primitive
	D-INTres+	DTAM-SE-user	D-INITIATE response primitive (Result = "accepted")
D-INTres _{w-w}	DTAM-SE-user	D-INITIATE	response primitive (Result = "rejected")
	D-TERreq	DTAM-SE-user	D-TERMINATE request primitive
	D-TERres	DTAM-SE-user	D-TERMINATE response primitive
	D-TRreq	DTAM-SE-user	D-TRANSFER request primitive
	D-TRreq*	DTAM-SE-user	D-TRANSFER request primitive for resuming purpose
	D-TPreq	DTAM-SE-user	D-TOKEN-PLEASE request primitive
	D-CGreq	DTAM-SE-user	D-CONTROL GIVE request primitive
	D-UAreq	DTAM-SE-user	D-(USER-)ABORT request primitive
DCPQ	DTAM-PM-PEER	D-CAPABILITY-REQUEST APDU	

DCPR+

DTAM-PM-PEER

D-CAPABILITY-RESPONSE APDU

as user data of an
S-CAPAB-DATA
indication primitive

as user data of an
S-CAPAB-DATA
confirm primitive
(result = "accepted")

TABLE B-1/T.433 (part 1 of 3) (cont.)

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	Abbreviated name	Source	Name and description
DCPR _{w-w}	DTAM-PM-PEER		D-CAPABILITY-RESPONSE APDU as user data of an S-CAPAB-DATA confirm primitive (result = "rejected by ...")
	DINQ	DTAM-PM-PEER	D-INITIATE-REQUEST APDU as user data of an S-CONNECT indication primitive
	DINR+	DTAM-PM-PEER	D-INITIATE-RESPONSE APDU as user data of an S-CONNECT confirm primitive (result = "accepted")
DINR _{w-w}	DTAM-PM-PEER		D-INITIATE-RESPONSE APDU as user data of an S-CONNECT confirm primitive (result = "rejected by ...")
	DAB	DTAM-PM-PEER	D-ABORT APDU as user data of an S-ABORT indication primitive
	DTEQ	DTAM-PM-PEER	D-TERMINATE-RESPONSE APDU as user data of an S-RELEASE indication primitive
	DTER	DTAM-PM-PEER	D-TERMINATE-RESPONSE APDU as user data of an S-RELEASE confirm primitive
	SEG	DTAM-PM-PEER	Segment of document information as user data of an D-DATA indication primitive

Incoming event list

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	Abbreviated name	Source	Name and description
S-CONcnf _{w-w}	SS-provider	S-CONNECT	confirm primitive (Result = "rejected") no
	DINR _{w-w}	APDU	
	S-RELind	SS-provider	S-RELEASE indication primitive
	S-RELcnf	SS-provider	S-RELEASE confirm primitive
	S-PABind	SS-provider	S-P-ABORT indication primitive
	S-ASind	SS-provider	S-ACTIVITY-START indication primitive
	S-MSind	SS-provider	S-MINOR-SYNCHRONIZE indication primitive
	S-MScnf	SS-provider	S-MINOR-SYNCHRONIZE confirm primitive
	S-AEind	SS-provider	S-ACTIVITY-END indication primitive
	S-AEcnf	SS-provider	S-ACTIVITY-END confirm primitive
	S-CGind	SS-provider	S-CONTROL-GIVE indication primitive
	S-TPind	SS-provider	S-TOKEN-PLEASE indication primitive
	S-UEind	SS-provider	S-U-EXCEPTION-REPORT indication primitive
	S-PEind	SS-provider	S-P-EXCEPTION-REPORT indication primitive
	S-AIind	SS-provider	S-ACTIVITY-INTERRUPT indication primitive
	S-AIcnf	SS-provider	S-ACTIVITY-INTERRUPT

			confirm primitive	
	S-ADind		SS-provider	
			S-ACTIVITY-DISCARD	
			indication primitive	
	S-ADcnf		SS-provider	
			S-ACTIVITY-DISCARD	
			confirm primitive	
	S-ARind		SS-provider	
			S-ACTIVITY-RESUME	
			indication primitive	

Incoming event list

Abbreviated name	Source	Name and description
a-ab	DTAM-PM	association (connection) aborted
a-res	DTAM-PM	activity resumption by the receiving DTAM-PM
a-ret	DTAM-PM	activity completed, discarded, or interrupted
ass-ab	DTAM-PM	start of association (connection)-abort procedure
next	DTAM-PM	transfer of the next segment
p-ab	DTAM-PM	start of provider-abort procedure
tr-discard	DTAM-PM	start of transfer-discard procedure
tr-interr	DTAM-PM	start of transfer-interrupt procedure
tr-p-ab	DTAM-PM	start of procedures transfer-abort followed by provider-abort
tr-pos	DTAM-PM	transfer successful completed
tr-res	DTAM-PM	start of transfer-resumption procedure
transfer	DTAM-PM	start of transfer procedure
resume	DTAM-PM	start of resume procedure
u-exr	DTAM-PM	start of user-exception-report procedure

DTAM-PM states

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	Abbreviated name	Name and description
	STA0	idle: unassociated
STA01	awaiting DINR+, DINR _{w-w} , or A-ASCcnf _{w-w}	
STA02	awaiting D-INTres+, or D-INTres _{w-w}	
	STA11	associated: DTAM-PM is association-initiating DTAM-PM and sending DTAM-PM
	STA111	associated: DTAM-PM is association-initiating DTAM-PM and awaiting DCPR+ or DCPR _{w-w}
	STA12	associated: DTAM-PM is association-initiating DTAM-PM and receiving DTAM-PM
	STA121	associated: DTAM-PM is association-initiating DTAM-PM and awaiting D-CAPres+ or D-CAPres _{w-w}
	STA21	associated: DTAM-PM is association-responding DTAM-PM and sending DTAM-PM
	STA211	associated: DTAM-PM is association-responding DTAM-PM and awaiting DCPR+ or DCPR _{w-w}
	STA22	associated: DTAM-PM is association-responding DTAM-PM and receiving DTAM-PM
	STA221	associated: DTAM-PM is association-responding DTAM-PM and awaiting D-CAPres+ or D-CAPres _{w-w}
	STA30	transfer: sending DTAM-PM
	STA31	suspended transfer: sending DTAM-PM
	STA32	awaiting-S-AEcnf: sending DTAM-PM
	STA321*	awaiting tr-pos: sending DTAM-PM

		STA34*		awaiting tr-discard to be followed	
				by D-TRcnf+ sending DTAM-PM	
		STA341		awaiting S-ADcnf to be followed by	
				D-TRcnf+: sending DTAM-PM	
		STA35*		awaiting tr-discard to be followed	
				by D-TRcnf _{w-w} : sending DTAM-PM	
		STA351		awaiting S-ADcnf to be followed by	
				D-TRcnf _{w-w} : sending DTAM-PM	

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DTAM-PM states

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Abbreviated name	Name and description
STA37* D-TRcnf _w -w: sending	awaiting tr-interr to be followed by DTAM-PM
STA371	awaiting S-AIcnf: sending DTAM-PM
STA38*	awaiting ass-ab: sending DTAM-PM
STA381*	awaiting a-ab: transfer sending DTAM-PM
STA40	awaiting DTR: transfer receiving DTAM-PM
STA400	awaiting DTR: ignored transfer receiving DTAM-PM
STA41	awaiting S-MSind or S-AEind: transfer receiving DTAM-PM
STA410	awaiting S-MSind or S-AEind: ignored transfer receiving DTAM-PM
STA42	awaiting recovery after u-exr event: transfer receiving DTAM-PM
STA43*	awaiting a-ret: transfer receiving DTAM-PM
STA44*	awaiting u-exr: transfer receiving DTAM-PM
STA45*	awaiting a-res: transfer receiving DTAM-PM
STA48*	awaiting ass-ab: transfer receiving DTAM-PM
STA481*	awaiting a-ab: transfer receiving DTAM-PM
STA70*	awaiting abort: unassociated
STA71*	awaiting abort: associated
STA91	awaiting D-TERres

| STA92 |

| awaiting S-RELCnf |

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Outgoing event list

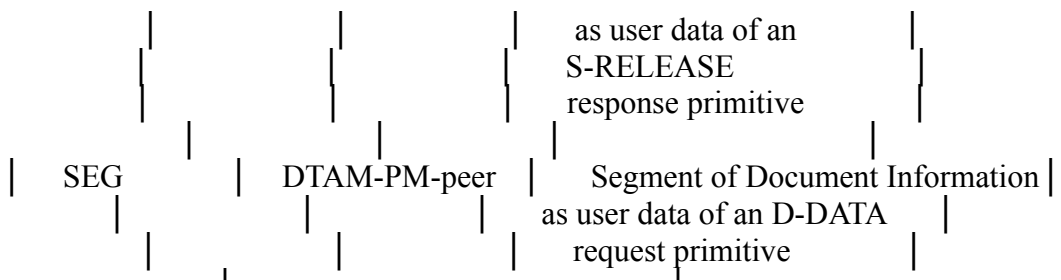
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	Abbreviated name	Target	Name and description
	D-CAPind	DTAM-SE-user	D-CAPABILITY indication primitive
	D-CAPcnf+	DTAM-SE-user	D-CAPABILITY confirm primitive (Result = "accepted")
D-CAPcnf _{w-w}	DTAM-SE-user	D-CAPABILITY	confirm primitive (Result = "rejected")
	D-INTind	DTAM-SE-user	D-INITIATE indication primitive
	D-INTcnf+	DTAM-SE-user	D-INITIATE confirm primitive (Result = "accepted")
D-INTcnf _{w-w}	DTAM-SE-user	D-INITIATE	confirm primitive (Result = "rejected")
	D-TERind	DTAM-SE-user	D-TERMINATE indication primitive
	D-TERcnf	DTAM-SE-user	D-TERMINATE confirm primitive
	D-TPind	DTAM-SE-user	D-TOKEN-PLEASE indication primitive
	D-TRind	DTAM-SE-user	D-TRANSFER indication primitive
	D-TRcnf+	DTAM-SE-user	D-TRANSFER confirm primitive (Result = "Document Information-transferred")
D-TRcnf _{w-w}	DTAM-SE-user	D-TRANSFER	confirm primitive (Result = "Document Information-not-transferred")

D-CGind	DTAM-SE-user	D-CONTROL-GIVE indication primitive
D-UAind	DTAM-SE-user	D-U-ABORT indication primitive
D-PAind	DTAM-SE-user	D-P-ABORT indication primitive

TABLE B-3/T.433 (part 1 of 3) (cont.)

	Abbreviated name	Target	Name and description
	DCPQ	DTAM-PM-peer	D-CAPABILITY-REQUEST APDU as user data of an S-CAPAB-DATA request primitive
	DCPR+	DTAM-PM-peer	D-CAPABILITY-RESPONSE APDU as user data of an S-CAPAB-DATA response primitive (result = "accepted")
	DCPR _{w-w}	DTAM-PM-peer	D-CAPABILITY-RESPONSE APDU as user data of an S-CAPAB-DATA response primitive (result = "rejected by ...")
	DINQ	DTAM-PM-peer	D-INITIATE-REQUEST APDU as user data of an S-CONNECT request primitive
	DINR+	DTAM-PM-peer	D-INITIATE-RESPONSE APDU as user data of an S-CONNECT response primitive (result = "accepted")
	DINR _{w-w}	DTAM-PM-peer	D-INITIATE-RESPONSE APDU as user data of an S-CONNECT response primitive (result = "rejected by ...")
	DAB	DTAM-PM-peer	D-ABORT APDU as user data of an S-ABORT request primitive
	DTEQ	DTAM-PM-peer	D-TERMINATE-REQUEST APDU as user data of an S-RELEASE request primitive
	DTER	DTAM-PM-peer	D-TERMINATE-RESPONSE APDU



Outgoing event list

Abbreviated name	Target	Name and description
S-RELreq	SS-provider	S-RELEASE request primitive
S-RELres	SS-provider	S-RELEASE response primitive
S-ASreq	SS-provider	S-ACTIVITY-START request primitive
S-MSreq	SS-provider	S-MINOR-SYNCHRONIZE request primitive
S-MSres	SS-provider	S-MINOR-SYNCHRONIZE response primitive
S-AEreq	SS-provider	S-ACTIVITY-END request primitive
S-AEres	SS-provider	S-ACTIVITY-END response primitive
S-CGreq	SS-provider	S-CONTROL-GIVE request primitive
S-TPreq	SS-provider	S-TOKEN-PLEASE request primitive
S-UEreq	SS-provider	S-U-EXCEPTION-REPORT request primitive
S-AIreq	SS-provider	S-ACTIVITY-INTERRUPT request primitive
S-AIres	SS-provider	S-ACTIVITY-INTERRUPT response primitive
S-ADreq	SS-provider	S-ACTIVITY-DISCARD request primitive
S-ADres	SS-provider	S-ACTIVITY-DISCARD response primitive
S-ARreq	SS-provider	S-ACTIVITY-RESUME

| request primitive |

Outgoing event list

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Abbreviated name	Target	Name and description
a-ab	DTAM-PM	association (connection) aborted
a-res	DTAM-PM	activity resumption by the receiving DTAM-PM
a-ret	DTAM-PM	activity completed, discarded, or interrupted
ass-ab	DTAM-PM	start of association-abort procedure
ass-rec	DTAM-PM	start of association-recovery procedure
next	DTAM-PM	transfer of the next segment
p-ab	DTAM-PM	start of provider-abort procedure
tr-discard	DTAM-PM	start of transfer-discard procedure
tr-interr	DTAM-PM	start transfer-interrupt procedure
tr-p-ab	DTAM-PM	start of procedures transfer-abort followed by provider-abort
tr-pos	DTAM-PM	transfer successful completed
transfer	DTAM-PM	start of transfer procedure
resume	DTAM-PM	start of user-resume procedure
u-exr	DTAM-PM	start of user-exception-report procedure