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Information processing systems – Open Systems Interconnection – File Transfer, Access and Management –

Part 4:
File Protocol Specification

AMENDMENT 4

Systèmes de traitement de l'information – Interconnexion de systèmes ouverts – Gestion, accès et transfert de fichier –

Partie 4: Spécification du protocole de transfert de fichier

AMENDEMENT 4

INTERNATIONAL

ISO

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Amendment 4 to International Standard ISO 8571-4:1988 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO 8571 consists of the following parts, under the general title *Information processing systems – Open Systems Interconnection – File Transfer, Access and Management*:

– *Part 1: General introduction*

– *Part 2: Virtual Filestore Definition*

– *Part 3: File Service Definition*

– *Part 4: File Protocol Specification*

– *Part 5: Protocol Implementation Conformance Statement Proforma*

Information processing systems – Open Systems Interconnection – File Transfer, Access and Management –

Part 4:
File Protocol Specification

AMENDMENT 4

Page 6

Remove subclause 6.2.4.

Page 7

Modify the last sentence of clause 7 paragraph 4 to read "The series of *file protocol* data units may not be divided..."

Page 9

Add the following to subclauses 8.3.1 and 8.3.2 after the word "initialized":

"..., where the *requested access* refers to a subset of the actions requested by the *service class* and *functional units* negotiated at initialization,..."

Page 10

Remove from 8.3.3 the following:

"...where the requested access must refer to a subset of the actions requested,..."

Page 12

Remove subclause 8.9.3 item b.

1

Replace subclause 8.9.3 item c with the following text:

"If the presentation action parameter is false, issue an F-OPEN confirm primitive to the IFS user, with parameters derived from the data values received, and enter the state "data transfer idle"."

Replace subclause 8.9.3 item d with the following text:

"If the presentation action parameter is true, preserve the PDU for further processing and enter state "p-alter context pending"."

Remove subclause 8.9.4 item a.

Replace subclause 8.9.4 item b with the following text:

"If the presentation action parameter is false, issue an F-OPEN confirm primitive to the IFS user, with parameters derived from the data values received;"

Replace subclause 8.9.4 item d with the following text:

"If the PDU did not carry a state result indicating failure and if the presentation action parameter is true, preserve the PDU for further processing;"

Change the last sentence of 8.9.5 first paragraph from:

"...in the state "p-alter context pending" and the p-alter indicator is set, the entity shall:..."

to:

"...in the state "p-alter context pending" and the presentation context management functional unit is available and there are presentation contexts to be deleted or defined, the entity shall:..."

Add the word "Construct" at the beginning of 8.9.5 a). "Construct a presentation..."

Remove subclause 8.9.5 item d.

Change the last sentence of 8.9.6 first paragraph from:

"...in the state "p-alter context pending" and the p-alter indicator is unset, the entity shall:..."

to:

"...in the state "p-alter context pending" and the presentation context management functional unit is available or there are no presentation contexts to be deleted or defined, the entity shall:..."

Page 13

Remove subclause 8.13.2 item b.

Page 14

Replace subclause 8.13.2 item c with the following text:

> "If the presentation action parameter is false, issue an F-RECOVER confirm primitive to the IFS user, with parameters derived from the data values received, and enter the state "data transfer idle recover"."

Replace subclause 8.13.2 item d with the following text:

> "If the presentation action parameter is true, preserve the PDU for further processing and enter the state "p-alter context pending"."

Change the last sentence of 8.13.3 first paragraph from:

> "...in the state "p-alter context pending" and the p-alter indicator is set, the entity shall:..."

to:

> "...in the state "p-alter context pending" and the presentation context management functional unit is available and there are presentation contexts to be deleted or defined, the entity shall:..."

Remove subclause 8.13.3 item d.

Change the last sentence of 8.13.4 first paragraph from:

> "...in the state "p-alter context pending" and the p-alter indicator is unset, the entity shall:..."

to:

> "...in the state "p-alter context pending" and the presentation context management functional unit is unavailable or there are no presentation contexts to be deleted or defined, the entity shall:..."

Page 18

Replace "current PDU" with "current PSDU" in subclause 9.10.4 item a.

Page 19

Replace "F-RECOVER response primitive" with "F-RECOVER response service primitive" in subclause 9.13.2 item e.

Page 20

Replace "an action result parameter" with "a diagnostic parameter" in subclause 10.2 item a.

Page 21

Replace "presentation" with "Presentation" and "session" with "Session" in subclause 11.2.2 second sentence.

Replace "session" with "Presentation" and "presentation" with "Presentation" in subclause 11.2.4

Page 22

Replace "next resynchronization point number" with "next synchronization point number" in subclause 11.2.5 at the end of the first paragraph.

Replace "presentation" with "Presentation" in subclause 11.2.5.

Replace "next synchronization point serial number" with "next synchronization point number" in subclause 13.1.2 b).

Page 24

In subclauses 15.1.2 and 15.2.2 replace "P-SYNCH-MINOR" with "P-SYNC-MINOR".

Replace "next synchronization point serial number" with "next synchronization point number" in subclause 15.3.1 item e.

Replace both occurrences "next synchronization point serial number" with "next synchronization point number" in subclause 15.3.1 item f.

Replace "synch point serial number" with "synchronization point serial number" in subclause 15.3.2 item b.

Page 25

Replace "next synchronization point serial number" with "next synchronization point number" in subclause 16.3.1 item c.

Replace "next synchronization point serial number" with "next synchronization point number" in subclause 16.3.1 item g.

Replace "synch point serial number" with "synchronization point serial number" in subclause 16.3.2 item b.

Replace "expected synchronization number" with "next synchronization point number" in subclause 17.2.5 item b.

Page 26

Replace "synchronization point number" with "synchronization point serial number" and replace "next resynchronization point serial number" with "next synchronization point number" in the last sentence of the paragraph in subclause 17.3.1.

Replace "resynchronization point number" with "synchronization point serial number" in subclause 17.3.3 item c.

Replace "resynchronization point number" with "synchronization point serial number" in subclause 17.3.4 item d.

Replace "resynchronization point number" with "synchronization point serial number" in subclause 17.3.5 item e.

Page 27

Replace "indication Permanent" with "indication. Permanent" in subclause 18.1.3 last paragraph.

Page 28

In subclause 19.1.1 item a replace "carrying" with "not carrying".

Add "d) issue an F-INITIALIZE request to the IFS provider." to subclause 19.1.2.1.1.

Page 29

In subclause 19.1.4 paragraph change the word "when" to "while".

Replace "F-INITIALIZE request" with "F-INITIALIZE response" in subclause 19.1.5.3.

Replace "FERPM and shall retain" with "FERPM shall retain" in subclause 19.1.5.4.

Page 30

In subclause 19.2.1 first sentence position the sentence after figure 4.

Replace subclause 19.2.1.3 with the following:

"If the entity is a sending entity, the F-RESTART request shall include the last acknowledged point as a recovery point."

Replace "Write or Read procedure" with "Read or Write procedure" in figure 5.

Replace "... it shall discard the primitive." with "... it shall decide that it is a collision-loser in the Session layer and shall send an F-RESTART response as a response to the F-RESTART indication." in the last sentence of subclause 19.2.1.7.

Page 31

In 19.2.3.4 c) replace the words:

"and an F-U-ABORT request to the internal file service provider, with a diagnostic..."

by the words:

"and locally signal the internal file service provider to issue a F-P-ABORT PDU with a diagnostic..."

Page 33

Add the following comments in the ASN.1 (subclause 20.3):

Insert after lines 29 and 45 the following:

"– If the recovery of restart data transfer functional units are not available, the checkpoint window parameter shall not be sent."

Page 37

Insert after line 255 the following:

"– If the fadu-locking functional unit is not available, the enable-fadu-locking parameter shall not be sent."

Change line 260 from "at-start-of-file" to "at-start-of-transfer".

Insert after line 275 the following:

"– If the recovery or restart data transfer functional unit are not available, the recovery-mode parameter shall not be sent."

Page 38

Insert after lines 309 and 319 the following:

"– The recovery-point parameter shall only be sent by the entity that was receiving data at the time of failure."

Page 40

Add an ASN.1 note in subclause 20.3 after line 470 stating "– At least one attribute parameter shall be present in Change Attributes on the request PDU".

Page 43

Add a note after line 654 of figure 11:
"– in the case where the parameter is a null list, "NULL" shall be
– – explicitly encoded."

Page 45

Add a new subclause 20.5 titled "Rules of extensibility" with the following text:

"For the F-INITIALIZE request FPDU, a receiving Responder FPM shall:
a) ignore any undefined element;
b) where named bits are used in subclause 20.3, treat any as insignificant when no name is assigned to it.

Pages 47 to 85

Replace annex A with the attached text.

The following subclauses have been amended:

A.1.1, A.1.2, A.1.6, A.1.7, A.2.4, A.2.7, A.2.9, A.3.4, A.3.5, A.3.9, A.4.4, A.4.6, A.4.7, A.4.8, A.4.9, A.5.2.1, A.5.2.2, A.5.2.3, A.5.3.1, A.5.3.2, A.5.3.3, A.5.4, A.5.5, A.5.6, A.5.7, A.5.8, A.5.9, A.5.11, A.5.12, A.5.13, A.5.15 and A.5.17.

Annex A
Protocol state tables

(This annex forms part of the standard.)

A.1 Introduction

In the event of a discrepancy becoming apparent in the protocol described in the body of this standard and the protocol described in this Annex, this Annex is to take precedence.

These tables describe the operation of the basic file protocol machine (FPM) and error recovery protocol machine (FERPM).

The basic protocol tables are divided into three groups, covering:

a) the FTAM regime management protocol machine;

b) the file regime management protocol machine;

c) the bulk data transfer protocol machine.

The initial and final states of the file regime management protocol machine are also states of FTAM regime management protocol machine. The initial and final states of the bulk data transfer protocol machine are also states of the file regime management protocol machine.

To provide formally complete and consistent description of the FTAM protocol sequences of events are considered indivisible in the model. That indivisibility ensures both that the states used in the description are well defined and that they are sufficient to describe the protocol.

The reception of a service primitive and the generation of dependent actions are considered to be an indivisible action. The reception of an FPDU and the generation of dependent actions are considered to be an indivisible action.

The indivisibility of actions may, in some implementations, cause certain events from file service users to be invalid at some service interface.

The conventions adopted in this Annex are described below.

A.1.1 System model used for protocol description

There are four types of receivers and sources of incoming and outgoing events (see figure 12):

a) The internal file service user, which is the file error recovery protocol machine (FERPM);

b) The external file service user — initiator or responder;

c) The local system environment;

d) the underlying presentation and ACSE service providers.

All primitives to/from the external file service user are passed through as primitives to/from the internal file service user to the basic FPM.

If the FERPM is not null — that is, either the RESTART or the RECOVER functional unit is available — parameters needed for error control and recovery may be added to these primitives.

Signals to/from the local environment group together events signalling errors and events signalling interactions amongst the FERPM, its docket and its local system. These local signals are

e) L-ERRABT — local signal indicating protocol or other local errors leading to F-P-ABORT, with a permanent error value in the action result parameter;

f) L-PABORT — local signal indicating that a F-P-ABORT request PDU with a transient error value in the action result should be issued;


```
                    ┌─────────────────────────┐
                    │  File error recovery    │  ↕ to/from external
                    │  protocol machine       │    file service user
                    │  (FERPM)                │
to/from local    ↔  ├─────────────────────────┤  ↕ to/from internal
environment         │                         │    file service user
                 ↔  │  Basic protocol machine │    (include FERPM)
                    │  FPM                    │
                    │                         │  ↕ to/from presentation
                    └─────────────────────────┘    or ACSE provider
```

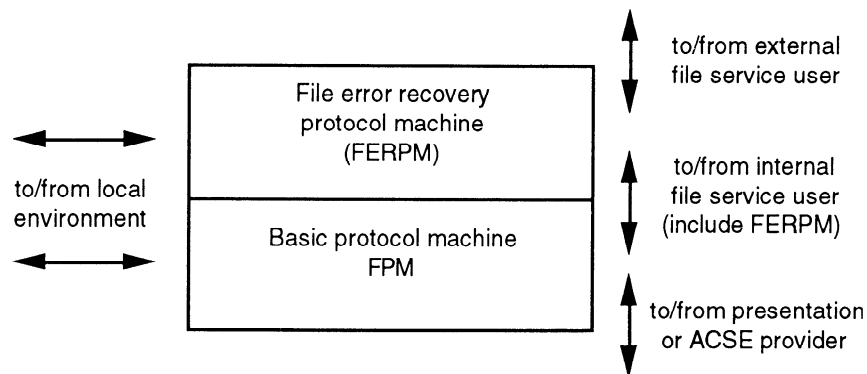Figure 12 — State machine system model

g) L-ERROR1, L-ERROR2 and L-ERROR3 — local signals indicating class I, class II and class III errors respectively;

h) L-SUSPND — a local signal sent by the sender in the RESTART state to the local system to suspend the issuing of F-DATA request and F-DATA-END request primitives;

i) L-RESUME — a local signal to the local system to resume the issuing of F-DATA request and F-DATA-END request primitives when a sender has completed its recovery from RESTART and is now back in DATA-XFER state;

j) L-RESEND — a local signal from the FERPM to the sending local system. This signal includes the negotiated restart checkpoint and eliminates the need to store data values in the docket. Upon receipt of this local signal the local system can either

1) resend data from the checkpoint if the local system is aware of the algorithm used by the FERPM to generate the checkpoint; or

2) resend data from the start of the file if it has no knowledge of the checkpoint generating algorithm. The FERPM in the RESTART state will discard all data from the local system that occurs before the negotiated checkpoint. The FERPM will only forward data past the negotiated checkpoint to the FPM;

k) L-DATRQ — signal representing a re-issued F-DATA request primitive from the local system;

l) L-DAERQ — signal representing a re-issued F-DATA-END request primitive when a "data-end" marker becomes available from the docket;

m) L-CHKRQ — signal representing a re-issued F-CHECK request primitive when a checkpoint identifier becomes available from the docket;

n) L-EORIN — end of restart indication signal indicating that all checkpoint identifiers, "data-end" markers are all data to be resent have been sent;

o) L-GIVEUP — signal indicating that the responding FERPM should abandon the recovery process. This is introduced so that if the initiating FERPM is unable to re-establish the association then the responding FERPM can inform its users of the irrecoverable error.

p) L-ERRCTX — signal indicating that the P-ALTER-CONTEXT negotiation is unsuccessful. The error is to be processed following the F-OPEN or F-RECOVER confirm as applicable.

q) L-HOLD — signal to FERPM to hold any primitive from the external user for later processing.

r) L-UNHOLD — signal to FERPM to process any previously held primitives.

s) L-STPSND --- a local signal from the FERPM to the sending local system to stop the resending of data and checkpoints.

A.1.2 Incoming Events

The receipt of sequences of service events are assumed to be permissible in accordance with those defined in ISO 8571-3.

Events in the tables are depicted by abbreviated names. A list of these abbreviations, arranged alphabetically within categories, precedes each table. Wherever possible, these events have been arranged in the order in which a normal error-free sequence of events would occur.

It is assumed that incoming PDUs have been extracted from the user data fields of Presentation or ACSE indication or confirm primitives prior to being considered as incoming events.

The following naming conventions are used:

a) The prefix "F-" (as in F-INIRQ) indicates a primitive issued by the external file service (EFS) user or issued by the FERPM to the EFS user;

b) The prefix "P-" (as in P-ALTRQ) indicates a primitive issued by the Presentation Service (PS) provider.

c) The prefix "A-" (as in A-PABIN) indicates a primitive issued by the ACSE provider;

d) The prefix "L-" (as in L-ERRABT) indicates a local signal from the FPM or the FERPM to the local system or from the local system environment to the FPM or the FERPM;

e) The prefix "I-" (as in I-OPNRQ) indicates a primitive issued by the FERPM to the FPM or vice-versa;

f) Where no prefix is used, the event is the receipt of an FTAM PDU or, in the case of GRPRQ and GRPRP, a grouped sequence of PDUs. The only exception is "DATIN" which indicates a data value in user context in the data transfer state.

g) The following suffices indicate the basic types of primitives and PDUs:

"RQ"	request
"IN"	indication
"RP"	response
"CF"	confirm

A.1.3 Outgoing Events

The same naming conventions are used for outgoing events as for incoming events. Where the outgoing event is the issue of a PDU, it will normally give rise to the similarly named incoming event for the other protocol entity. For example, the outgoing event SELRP of the responding entity will become the incoming event SELRP for the initiating entity.

A.1.4 States

The suffix "-PD" indicates a pending state, waiting for some known primitive or PDU type. The suffix "-EX" indicates an expectant state in FERPM, waiting for some expected primitive.

The prefix "P-" normally indicates waiting for a primitive from the Presentation Service provider. Similarly, the

prefix "F-" indicates waiting for a primitive from the EFS user. If neither of the above prefices is used, the state normally indicates waiting for a PDU, or a non-pending state.

A.1.5   Predicates

The following symbols used in predicates have their normal Boolean algebraic meanings:

&	AND
I	OR
~	NOT

An incoming event may satisfy more than one predicate, in which case the conditional actions for satisfied predicates will be executed.

Some actions may be conditional upon the negotiation of particular service functional units;

those in the FPM are:

U1:	Kernel functional unit
U2:	Read functional unit
U3:	Write functional unit
U4:	File access functional unit
U5:	Limited management functional unit
U6:	Enhanced management functional unit
U7:	Grouping functional unit
U8:	FADU locking functional unit

those in the FERPM are:

U9:	Recovery functional unit
U10:	Restart data transfer functional unit

A.1.6   Actions

Actions may be conditional on specified predicates, or they may be unconditional. When a line in a "detailed entries" specification commences with a predicate specifier followed by a colon, this indicates that all actions on that line are conditional upon the indicated predicate. An action may consist of one or more of the following:

a)   an outgoing event, indicated by its abbreviated name;

b)   a specified action, indicated by a number in square brackets [ ] and separated from any preceding items by a comma;

c)   a specified qualifier, indicated by a number in square brackets [ ] following a preceding item without a intervening comma;

Actions are qualifiers are described in a single list preceding the table.

The next state which the protocol entity will enter is indicated by an arrow preceding a state name, e.g. "⇒ SELECTED". For the null transition back to the current state, the notation "⇒ *same state*" is used.

Once a state change occurs, all subsequent actions in that entry are ignored.

A.1.7   Implicit Action

The following entity actions have not been explicitly specified in the State tables, but constitute part of the entity behaviour:

a)   A blank square in the table indicates an invalid event.

b)   Unless otherwise stated in the tables, an invalid event would cause the action specified in 10.2 to be executed.

c)   The Presentation Service is used throughout to identify "active" FTAM PCI from data with an equivalent encoding, but in a "passive" use data context.

d)   For each incoming PDU, a check is made that the appropriate functional unit has been negotiated for the connection. If the check fails, the procedures for protocol violation specified in 10.2 are followed.

e)   For each incoming PDU the permissible sequences of service events as defined in ISO 8571-3 shall be checked. If the check fails the procedures for protocol violation specified in 10.2 are followed.

A.1.8   Additional State Information

The tables make use of the indicators and other state variables defined in 6.2 and 11.2. In addition, the file regime management tables for the initiator make use of a threshold indicator and an expected response list, as a means of specifying the entity state when a concatenated PDU group is outstanding.

The symbol NSPN is used to denote the Next Synchronization Point Number state variable.

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A.2 FTAM regime management protocol machine (Kernel functional unit)

A.2.1 States — FTAM regime management

UNINITIALIZED   FTAM regime ended.

INITIALIZE-PD   Initialize pending; wait for initialize response PDU.

INITIALIZED   FTAM regime started.

TERMINATE-PD   Terminate pending; wait for terminate response PDU.

I-INITIALIZE-PD   Initialize pending; wait for F-INITIALIZE response primitive from the internal file service user.

I-TERMINATE-PD   Terminate pending; wait for F-TERMINATE response primitive from the internal file service user.

ANY-OTHER   Any other state of the file regime management protocol machine or the bulk data transfer protocol machine.

A.2.2 Incoming events — FTAM regime management

In the following lists, the functional unit in which the event occurs is included after the name, where applicable.

A.2.2.1 Incoming events — PDUs

UABRQ	U-Abort request PDU (on A-ABORT indication primitive)	U1
PABRQ	P-Abort request PDU (on A-ABORT indication primitive)	"
INIRQ	Initialize request PDU	"
INIRP	Initialize response PDU	"
TERRQ	Terminate request PDU	"
TERRP	Terminate response PDU	"

A.2.2.2 Incoming events from the internal file service user

I-UABRQ   F-U-ABORT request primitive

I-INIRQ   F-INITIALIZE request primitive

I-INIRP   F-INITIALIZE response primitive

I-TERRQ   F-TERMINATE request primitive

I-TERRP   F-TERMINATE response primitive

A.2.2.3 Incoming events from the ACSE provider

A-PABIN   A-P-ABORT indication primitive

A-ABIN   A-ABORT indication primitive without user data

A-ASSCF   A-ASSOCIATE confirm primitive without user data (with result indicating reject by ACSE or presentation service provider)

A.2.2.4 Incoming events from the local system

L-ERRABT   Local signal indicating error leading to abort

L-PABORT   Local signal indicating that a F-P-ABORT request PDU and a F-P-ABORT indication primitive to the internal file service user, both with a transient error value.

A.2.3 Outgoing events — FTAM regime management

A.2.3.1 Outgoing events — PDUs

UABRQ   U-Abort request PDU

PABRQ   P-Abort request PDU

INIRQ	Initialize request PDU
INIRP	Initialize response PDU
TERRQ	Terminate request PDU
TERRP	Terminate response PDU

A.2.3.2 Outgoing events to the internal file service user

I-UABIN	F-U-ABORT indication primitive
I-PABIN	F-P-ABORT indication primitive
I-INIIN	F-INITIALIZE indication primitive
I-INICF	F-INITIALIZE confirm primitive
I-TERIN	F-TERMINATE indication primitive
I-TERCF	F-TERMINATE confirm primitive

A.2.4 Specific actions — FTAM regime management

[1] Send the PDU constructed as user data and map parameters on the appropriate ACSE form.

[3] Initialize state information - unset all additional state information indicators, set outstanding checkpoint counter to zero, NSPN to one.

[4] Set state result parameters to "success".

[5] In case of ACSE provider abort, if any diagnostic indicates communications failure then set the action result to transient error.

[6] Set state result parameter to "failure".

[7] Record the FQOS required and select the restart and/or recovery functional units if necessary.

[12] Establish the list of presentation contexts needed to support FTAM PCI and ACSE PCI abstract syntaxes. If necessary, determine, on the basis of the abstract syntaxes derived from the contents type list supplied by the external file service user, the list of presentation contexts needed to support the file contents, and add it to the previous list. The resultant list is used to construct the presentation context definition list parameter.

[13] Update the value of the contents type list parameter in the F-INITIALIZE indication primitive issued to the internal file service user, according to the abstract syntaxes rejected by the presentation service provider, if necessary.

[14] According to the value of the contents type list on the F-INITIALIZE response primitive received from the internal file service user, construct the presentation context definition result parameter.

[20] Set the action result parameter according to the result parameter of the A-ASSOCIATE confirm service primitive.

[62] Record the peer entity's checkpoint window.

[80] Set action result to permanent error

[81] Set action result to transient error

A.2.5 Predicates — FTAM regime management

P1: I-INITIALIZE request primitive is acceptable.

P2: Result parameter of the ACSE confirm primitive indicates success of the operation.

P3: State result parameter of the incoming response primitive indicates success of the operation.

P5: Initialize request PDU is acceptable.

P25: Negotiable parameters have values consistent with request.

A.2.6   Initiating entity state table — FTAM regime management

EVENT	UNINITIALIZED	INITIALIZE-PD	INITIALIZED	TERMINATE-PD	ANY-OTHER
I-INITRQ	1				
A-ASSCF		10			
INIRP		2			
I-TERRQ			3		
TERRP				4	
A-PABIN	5	5	5	5	
A-ABIN	7	7	7	7	
UABRQ	6	6	6	6	
PABRQ	7	7	7	7	
I-UABRQ	8	8	8	8	
L-ERRABT	9	9	9	9	
L-PABORT	11	11	11	11	

A.2.7   Initiating entity state table: detailed entries

1:	P1:	[3],[12],INIRQ[1]	⇒ INITIALIZE-PD
	~P1:	I-INICF[6]	⇒ same state
2:	P3&P2 & P25:	[62],I-INICF[4],[7]	⇒ INITIALIZED
	P3&P2 & ~P25:	I-INICF[6],PABRQ[1]	⇒ UNINITIALIZED
	~P2:	I-INICF[6]	⇒ UNINITIALIZED
	~P3:	PABRQ[1],I-PABIN[80]	⇒ UNINITIALIZED
3:		TERRQ[1]	⇒ TERMINATE-PD
4:		I-TERCF	⇒ UNINITIALIZED
5:		I-PABIN[81]	⇒ UNINITIALIZED
6:		I-UABIN	⇒ UNINITIALIZED
7:		I-PABIN	⇒ UNINITIALIZED
8:		UABRQ[1]	⇒ UNINITIALIZED
9:		PABRQ[1],I-PABIN[80]	⇒ UNINITIALIZED
10:		I-INITCF[6],I-PABIN[20]	⇒ UNINITIALIZED
11:		PABRQ[1],I-PABIN[81]	⇒ UNINITIALIZED

A.2.8 Responding entity state table — FTAM regime management

STATE / EVENT	UNINITIALIZED	I-INITIALIZE-PD	INITIALIZED	I-TERMINATE-PD	ANY-OTHER
INIRQ	1				
I-INIRP		2			
TERRQ			3		
I-TERRP				4	
A-PABIN		5	5	5	5
A-ABIN		7	7	7	7
UABRQ		6	6	6	6
PABRQ		7	7	7	7
I-UABRQ		8	8	8	8
L-ERRABT		9	9	9	9
L-PABORT		11	11	11	11

A.2.9 Responding entity state table: detailed entries

1:	P5:	I-INIIN,[3],[62],[13]	⇒ I-INITIALIZE-PD
	~P5:	INIRP[6][1]	⇒ same state
2:	P3:	[7],[14],INIRP[1]	⇒ INITIALIZED
	~P3:	INIRP[6][1]	⇒ UNINITIALIZED
3:		I-TERIN	⇒ I-TERMINATE-PD
4:		TERRP[1]	⇒ UNITIALIZED
5:		I-PABIN[81]	⇒ UNITIALIZED
6:		I-UABIN	⇒ UNITIALIZED
7:		I-PABIN	⇒ UNITIALIZED
8:		UABRQ[1]	⇒ UNITIALIZED
9:		PABRQ[1],I-PABIN[80]	⇒ UNITIALIZED
11:		PABRQ[1],I-PABIN[81]	⇒ UNITIALIZED