

INTERNATIONAL TELECOMMUNICATION UNION



THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE



SERIES T: TERMINAL EQUIPMENT AND PROTOCOLS FOR TELEMATIC SERVICES

CONTROL PROCEDURES FOR TELETEX AND GROUP 4 FACSIMILE SERVICES

Reedition of CCITT Recommendation T.62 published in the Blue Book, Fascicle VII.3 (1988)

NOTES

1 CCITT Recommendation T.62 was published in Fascicle VII.3 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 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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CONTROL PROCEDURES FOR TELETEX AND GROUP 4 FACSIMILE SERVICES

(Malaga-Torremolinos, 1984; amended at Melbourne, 1988)

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1 General

1.1 Scope

1.1.1 Recommendation F.200 lays down the provisions for the operation of the automatic international Teletex service. On the technical side, Recommendation T.60 specifies the requirements for international compatibility between Teletex terminals and Recommendation T.61 defines the character repertoire and coded character sets for the international Teletex service.

1.1.2 Recommendation F.161 defines the rules to be followed in the Group 4 facsimile service. On the technical side, Recommendations T.563, T.503 and T.521 specify the requirements for Group 4 facsimile apparatus and Recommendation T.6 defines the Group 4 facsimile coding scheme and facsimile control functions.

1.1.3 T.400 series of Recommendations define the document interchange protocol which may be used when services other than basic Teletex are utilized; e.g. Group 4 facsimile, mixed-mode operation, etc.

1.1.4 Network-dependent communication procedures for call establishment and termination are defined in Recommendations T.60 and T.563 for the Teletex and Group 4 facsimile services, respectively.

1.1.5 This Recommendation defines the end-to-end procedures to be used within the Teletex and Group 4 facsimile services.

1.1.6 Specifically, this Recommendation concerns the end-to-end control procedures that are network-independent. The network-dependent procedures forming a network-independent transport service are specified in Recommendations T.70 and, as applicable, T.71.

1.1.7 The procedure described in this Recommendation should also be used between a Teletex terminal and a Teletex/telex conversion facility (see Recommendations F.201, T.60 and T.390) and when a Teletex or G4 facsimile terminal takes an access to IPMS (see Recommendations T.422, T.60, T.330 and T.563).

1.1.8 Interworking between Teletex and services other than telex and IPMS, and between Group 4 facsimile and services other than IPMS is for further study.

1.1.9 This Recommendation assumes that the terminal initiating a call is the terminal regarded as responsible for call charges and that it retains full control of the call.

1.1.10 The provisions in this Recommendation are to be regarded as a first stage in the establishment of Teletex and Group 4 facsimile services in accordance with Recommendations F.200, T.60, T.61 and T.70 as defined in 1980 and Recommendations F.161, T.5, T.6 and T.73 as defined in 1984, respectively. Enhancements and additions to these Recommendations must ensure compatibility with established services.

1.2 Fundamental principles

1.2.1 The relationship between the control procedures in this Recommendation and the transport service shall respect the principle that the higher level procedures require the transport service to preserve the structure of blocks, which may be of arbitrary size, given to it by the session level for transmission. Only one session command or response is allowed in such a block. Only one document command or response is allowed in a CSUI or RSUI field (command or response session user information).

1.2.2 The sending terminal is responsible for verifying the correct delivery of the information in its document to the recipient's physical media, i.e. store, hard copy device. This may include linking and other relevant information.

1.3 *Definitions*

1.3.1 Terms and their definitions are listed in Annex A. Where appropriate, each definition mentions the control procedures to which it refers.

1.3.2 Some of the terms used in this Recommendation have been defined in ways that may differ from the meanings of similar terms in other Recommendations.

2 Functions of the procedures

2.1 General

2.1.1 The broad functional categories provided to implement the control procedures are listed in Tables 1/T.62 and 2/T.62.

TABLE 1/T.62

Session commands and responses

Command	Response	Abbreviation	Reference
Session establi	shment and clearing		
Command session start		CSS	§ 3.2.1
	Response session start positive	RSSP	§ 3.2.2
	Response session start negative	RSSN	§ 3.2.3
Command session end		CSE	§ 3.2.4
	Response session end positive	RSEP	§ 3.2.5
Command session abort		CSA	§ 3.2.6
	Response session abort positive	RSAP	§ 3.2.7
Informa	tion transfer		
Command session user information		CSUI	§ 3.2.8
	Response session user information	RSUI	§ 3.2.9
Session	management		
Command session change control		CSCC	§ 3.2.10
	Response session change control positive	RSCCP	§ 3.2.11

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TABLE 2/T.62

Document commands and responses

Command	Response	Abbreviation	Reference
Docume	nt control		
Command document start		CDS ^{a)}	§ 3.4.1
Command document continue		CDC ^{a)}	§ 3.4.3
Command document capability list		CDCL	§ 3.4.4
	Response document capability list positive	RDCLP	§ 3.4.5
Command document end		CDE ^{b)}	§ 3.4.6
	Response document end positive	RDEP	§ 3.4.7
Command document discard		CDD	§ 3.4.8
	Response document discard positive	RDDP	§ 3.4.9
Command document resynchronize		CDR	§ 3.4.10
	Response document resynchronize positive	RDRP	§ 3.4.11
Informat	ion transfer		
Command document user information		CDUI	§ 3.4.12
Error	recovery		
	Response document general reject	RDGR	§ 3.4.2
Command document page boundary		CDPB	§ 3.4.13
	Response document page boundary positive	RDPBP	§ 3.4.14
	Response document page boundary negative	RDPBN	§ 3.4.15

^{a)} RDGR is used as a negative response to this command. A specific negative response is not required.

^{b)} The negative response to this command is RDPBN.

2.1.2 The procedural elements have also been listed in the appropriate categories since the definitions of the elements together with their associated rules completely specify the functions of the procedures.

2.2 Background information

 $Note - \S 2$ is given as an aid for the understanding of the procedures. The exact definitions of the control procedures are given in subsequent sections of the Recommendation.

2.2.1 *Exchange of service identification*

2.2.1.1 Two terminals, when connected by a transport service, will, at session establishment, exchange information identifying whether they are participating in the Telematic services and thus they will invoke the relevant service facilities and the associated protocol.

2.2.2 *Negotiation of optional capabilities*

2.2.2.1 Two methods are provided. The first is used at session initiation to exchange a limited list of capabilities. The second method may be used when required, after session initiation, to indicate the sender's requirements for extended capabilities.

2.2.3 *Negotiation of storage requirements*

- 2.2.3.1 Storage availability can be indicated in the following ways:
 - a) When a Teletex session is established, it is implicitly assumed that there is adequate receive memory for the call. Exceptionally a receiver memory overflow will occur. The continued sending of the document from the source will be stopped by the sink. The sink shall indicate the reason for stopping the transmission.
 - b) When a Group 4 facsimile session is established, it can only be assumed that the called terminal has adequate recording paper to print at least one page of information (for basic Class 1 apparatus). Negotiation of storage requirements is mandatory for Group 4 Classes 2 and 3 facsimile apparatus. Having negotiated this requirement, exceptionally, a receive memory overflow may occur. The continued sending of the document from the source will be stopped by the sink. The sink shall indicate the reason for stopping the transmission.
 - c) The provision is also made in the procedure for a mandatory indication that the ability of the receiving terminal to continue to accept traffic is jeopardized.
 - d) The control procedure also provides the possibility to investigate the storage availability at the receiving terminal prior to the transmission of a document.

3 Elements of procedure

3.1 General

3.1.1 The paragraphs below contain elements of procedure and rules of use which, when combined, define the control procedures.

- 3.1.2 Definitions applying to the elements of procedure may be found in Annexes A and B.
- 3.1.3 Annex D describe the session suspension function, which is not applicable to the basic services.
- 3.2 *Session commands, responses and parameters*

(For a summary of session commands and responses, see Table 1/T.62.)

- 3.2.1 *Command session start (CSS)*
- 3.2.1.1 The CSS initiates entry into a session.
- 3.2.1.2 Command parameters are:
 - a) *Service identifier* this mandatory parameter identifies whether the sender of this command intends to use the Telematic service.
 - b) *Terminal identifier* this mandatory parameter identifies the calling terminal in accordance with the terminal identification specified in Recommendation F.200.

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- c) *Date and time* this mandatory parameter gives date and time information as specified in Recommendation F.200.
- d) *Additional session reference number* this number shall be used in addition to the basic session reference (terminal identifier of the called terminal, terminal identifier of the calling terminal, date and time) when the basic session reference is not sufficient to uniquely identify the session and such unique identification is required. If the additional session reference number is not used, the parameter shall not be included.
- e) *Non-basic terminal capabilities* these parameters indicate which of the non-basic terminal capabilities listed in Table 3/T.62 for the Teletex service are available as receiving capabilities of the sender of this command. These parameters are mandatory if the terminal is capable of any of the specific functions listed in these table. Absence of the parameter indicates that the specific function is not available.
- f) *Non-basic session capabilities* if used, this non-mandatory parameter indicates which non-basic session capabilities are available as receiving capabilities of the sender of this command.

Note – Examples of the use of this parameter are session suspension (see Annex D) and negotiation of the window size for checkpoint (see §§ 3.3.2.7 and 4.3).

- g) *Inactivity timer* this non-mandatory parameter is used to negotiate the value of the inactivity timer (see §§ 4.1.2 and 5.7.2.11).
- h) Session service functions this non-mandatory parameter is used to specify the session service capabilities available. This parameter is used for the interactive session protocol (ISP) and typed data transfer (TDX).

Note - Examples of the use of this parameter are for further study in association with Annex F.

- i) Session user data this non-mandatory parameter is used to convey data of the presentation and/or application protocol(s). All information necessary to negotiate the document interchange protocol parameters defined in the T.400 Series of Recommendations is contained in this parameter field.
- j) *Non-standardized capabilities* this non-mandatory parameter is used to ascertain compatibility regarding the use of non-standardized terminal capabilities.

The first octet following the parameter identifier and the length indicator identifies a particular country. The meaning and code assignments of subsequent octets are defined by the indicated country.

- k) *Private use parameters* these parameters are not mandatory. Their definition and use are not standardized.
- 3.2.2 Response session start positive (RSSP)

3.2.2.1 The RSSP shall be used to acknowledge entry into a session. It indicates that the CSS command has been understood and is in a correct format.

- 3.2.2.2 Response parameters are:
 - a) *Service identifier* this mandatory parameter identifies whether the sender of this response intends to use the Telematic service.

Note 1 – For the basic Teletex services, the service identifiers in RSSP and CSS must be identical.

Note 2 - In case of interconnections between the terminals of different services, the service identifiers in RSSP and CSS may not be identical.

- b) *Terminal identifier* this mandatory parameter provides the terminal identification of the sender of the RSSP in accordance with the terminal identification specified in Recommendation F.200.
- c) *Date and time* this mandatory parameter must be identical to the corresponding parameter in the CSS. It is used in conjunction with the terminal identifications of both terminals in a session as a reference to that session.
- d) Additional session reference number if used in the CSS and if used by the receiver of CSS, this parameter shall have the same value as in the CSS. In this case, it shall also be used, together with the basic session reference when referring to this session in a CDC command. If it is not used by the receiver of CSS, it shall not appear in the RSSP.
- e) *Non-basic terminal capabilities* (i.e. those available as receiving capabilities of the sender of the RSSP) the same conditions apply as for § 3.2.1.2 e) above.
- f) Non-basic session capabilities as for § 3.2.1.2 f) above.

- g) Session control functions this parameter is used to indicate "request control" and "request session suspension" as defined in this Recommendation.
- h) Inactivity timer as for § 3.2.1.2 g) above.
- i) Session service functions as for § 3.2.1.2 h) above.
- j) Session user data as for § 3.2.1.2 i) above.
- k) Non-standardized capabilities- as for § 3.2.1.2 j) above.
- 1) *Private use parameters* as for § 3.2.1.2 k) above.

TABLE 3/T.62

Non-basic terminal capabilities included in CSS

Parameter	Function
Control character sets	Reverse line feed
Page formats	ISO A4 vertical and horizontal orientation
Miscellaneous terminal capabilities	Character spacing of 2.12 mm (12 characters per 25.4 mm)
	Character spacing of 1.69 mm (15 characters per 25.4 mm)
	Line feed parameter value of one spacing of 3.175 mm
	Line feed parameter value of one spacing of 0.5, 1.0, 1.5 and two spacings of 5 mm

Note – The definitions of these presentation capabilities may be found in Recommendation T.60. Future extensions and private-use capabilities are to be accommodated with CDCL.

3.2.3 *Response session start negative (RSSN)*

3.2.3.1 The negative response indicates that the session was not entered by the receiver of the CSS. It is not mandatory to indicate the reasons for rejection. A non-mandatory private-use parameter may be used with this response.

Note – It should be noted that existing equipment may send an RSSN without any parameter fields. This shall not be regarded as an error.

- 3.2.3.2 Response parameters are:
 - a) *Service identifier* this mandatory parameter identifies whether the sender of this response intends to use the telematic service.

Note 1 – For the basic services, the service identifiers in RSSN and CSS must be identical.

Note 2 – In case of interconnections between the terminals of different services, the service identifiers in RSSN and CSS may not be identical.

- b) *Terminal identifier* this mandatory parameter provides the terminal identification of the sender of the RSSN in accordance with the terminal identification specified in Recommendation F.200.
- c) *Date and time* this mandatory parameter must be identical to the corresponding parameter in the CSS. It is used in conjunction with the terminal identifications of both terminals in a session as a reference to that session.
- d) Additional session reference number if used in the CSS and if used by the receiver of CSS, this parameter shall have the same value as in the CSS. If it is not used by the receiver of CSS, it shall not appear in the RSSN.
- e) *Non-basic terminal capabilities* (i.e. those available as receiving capabilities of the sender of the RSSN) the same conditions apply as for § 3.2.1.2 e) above.

- f) Non-basic session capabilities as for § 3.2.1.2 f) above.
- g) *Reason for sending the negative response* this parameter is used to indicate the reason for sending the RSSN. The parameter value may be presented to an operator when received. One of the following reasons may be used as a value of the parameter:
 - no reason given;
 - temporarily unable to enter the session. Shall be used e.g. in the case of memory full;
 - text message of maximum 69 characters. It may be possible for the operator to enter this message from the keyboard.
- h) Session service functions: as for § 3.2.1.2 h) above.
- i) Session user data: as for § 3.2.1.2 i) above.
- j) *Private use parameters:* as for § 3.2.1.2 k) above.
- 3.2.4 *Command session end (CSE)*
- 3.2.4.1 The CSE is used for normal (or error-free) termination of a session.

Note - A parameter is reserved to indicate whether the transport connection is to be cleared. Absence of this parameter will cause the transport connection to be cleared.

3.2.5 *Response session end positive (RSEP)*

3.2.5.1 The RSEP indicates to the calling terminal that the called terminal has entered the idle state in an orderly manner.

3.2.6 *Command session abort (CSA)*

3.2.6.1 The CSA may be used at any time by either terminal to terminate a session, whenever a condition is detected indicating that the session cannot be continued successfully. CSA shall only be used when there is no other suitable way of ending the session.

3.2.6.2 One of the following reasons for the abnormal termination of the session must be given as a CSA parameter:

- a) local terminal error;
- b) unrecoverable procedural error;
- c) reason not defined.

Note – One value is reserved to indicate whether the transport connection is to be cleared.

3.2.7 *Response session abort positive (RSAP)*

3.2.7.1 The RSAP response indicates to the sender of a CSA command (either the source or the sink terminal) that the receiver of CSA has entered the idle state in an orderly manner.

3.2.8 *Command session user information (CSUI)*

3.2.8.1 The CSUI is used to indicate to the receiver that the associated information field of this command conveys command, parameters and information for the document procedures.

3.2.8.2 CSUI does not call for a response. There is no relationship between this command and the response RSUI.

3.2.9 Response session user information (RSUI)

3.2.9.1 The RSUI is used to indicate to the receiver of this response (source) that the associated information field conveys response and parameters for the document procedures. A non-mandatory parameter, session control function, may be used with this response.

3.2.9.2 This RSUI response is not related to any CSUI command.

3.2.9.3 The parameter, session control functions, is sent with RSUI in conjunction with document response. Use of this parameter with RSUI but without an associated document response is permitted only in the case where the session may intentionally be inactive for a period of time. In this case, when no document responses are being generated, use of the session control functions parameter is permitted without an associated document response. For the Teletex service, this requires a preceding negotiation of the inactivity timer to a value different from the default value.

- 3.2.10 Command session change control (CSCC)
- 3.2.10.1 In the two-way alternate (TWA) mode CSCC changes the source/sink relationship between the two terminals.

Note - A signal for request control is available in some responses (see coding scheme). It may be used to indicate that a terminal sending this signal has information to transmit. The terminal receiving this signal is not required to take any action if this signal is detected.

- 3.2.11 Response session change control positive (RSCCP)
- 3.2.11.1 The RSCCP indicates to the sender of the CSCC that the sink terminal intends to enter the session sending state.
- 3.3 Session procedures
- 3.3.1 Session modes of operation
- 3.3.1.1 The following provisions concern the TWA mode of session operation:
 - a) the basic protocol provides the capability of the TWA mode;
 - b) at session initiation, the sender of the CSS is defined as being the current source of any text information and is therefore the source terminal;
 - c) the CSCC exchanges the source/sink relationship between the two terminals. The CSCC command should only be invoked outside document boundaries.
 - d) only the terminal that is currently the source terminal may send the CSCC;
 - e) there is no requirement for sending text information prior to sending a CSCC;
 - f) when the called terminal has finished transmitting text, it shall hand back the right of sending text to the calling terminal. Only the calling terminal is allowed to send CSE.
- 3.3.1.2 The following provisions concern the one-way communication (OWC) mode of session operation:
 - a) the OWC mode is achieved by the CSS sender not issuing a CSCC;
 - b) there is no requirement to send text information.
 - c) this mode is a subset of TWA.
- 3.3.2 *Rules for session elements of procedure*
- 3.3.2.1 Only the terminal that has established the transport connection (the calling terminal) shall send CSS.

3.3.2.2 It is the responsibility of the sender of CSS to examine the parameters of RSSP and to determine whether the session should continue. If it is not to be continued, the session shall be ended normally (by CSE).

3.3.2.3 In continuing the session, neither terminal is permitted to use any procedure or to send any information that does not comply with the receiving capabilities indicated by the session partner in the service identifier and non-basic session and terminal capabilities parameters of the CSS/RSSP exchange at session initiation and/or by the parameters of CDCL/RDCLP exchange.

3.3.2.4 In the TWA or OWC mode, only the sender of CSS may send CSE when he is the current source.

3.3.2.5 In the TWA mode, the recipient of both CSS and CSCC must terminate his period as source by sending CSCC.

3.3.2.6 In any mode of operation, CSA may be sent at any time by either terminal whenever a condition is detected indicating that the session cannot be successfully continued (e.g. due to failure or charging problems). The following rules are applied to the session abort procedure:

- a) the session abort procedure is in general completed when the sender of a CSA command receives an RSAP response;
- b) the terminal sending the CSA waits for a response RSAP. In state 14, all other commands or responses received will be discarded. If RSAP is not received before a time-out (e.g. T = 4 seconds), the terminal that send the CSA clears the transport connection.

Note - In all cases the transport connection must be cleared when the CSA timer has expired.

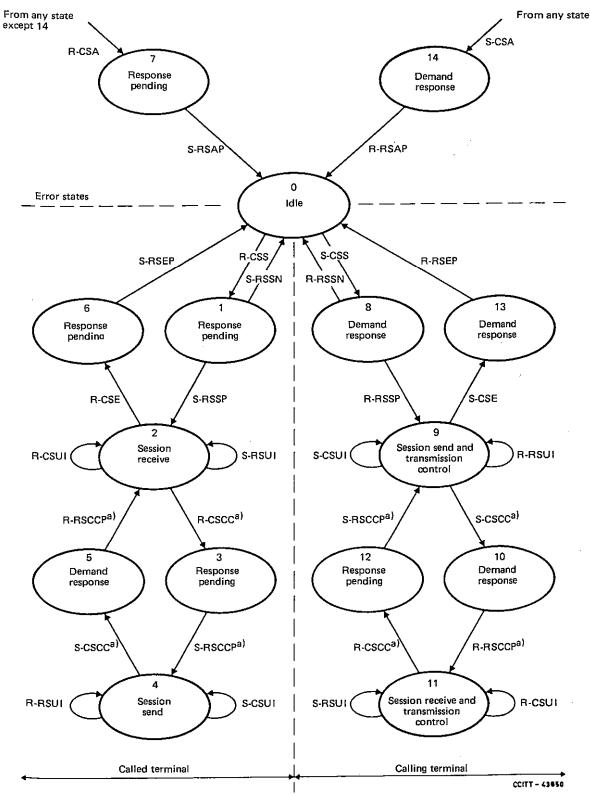
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- 3.3.2.7 The following rules should apply to the use of window size:
 - a) the indication of the window size parameter is not mandatory for the Teletex service, but is mandatory for the Group 4 facsimile service. It may have a value in the range of 1 to 255. The absence of this parameter in CSS or its corresponding response must be interpreted as the default value of three for the Teletex service;
 - all the Teletex terminals should support a window size of 3. Group 4 facsimile terminals of Classes 2 and 3 should be able to support a window size of 3 when interworking with Teletex. Enhanced Teletex terminals (e.g. with mixed-mode capability) and all Group 4 facsimile terminals may require other window sizes;
 - c) the rule for the use of window size is that the source terminal is free to use any window size that does not exceed the window size indicated by the sink terminal (in CSS or its corresponding response);
 - d) if the sender of CSS or its corresponding response is a basic Teletex terminal which does not indicate any parameter for the window size, the receiver should be aware that the sender may ignore any window size indicated and use the window size of 3.

3.3.2.8 Figure 1/T.62 is a state transition diagram for TWA and OWC session modes. The change control commands and responses [marked with an "a)" in the diagram] do not apply to the OWC mode. The general description and rules of operation for state diagrams may be found at Annex D.

3.3.2.9 In a session where the use of the RSUI with request control is permitted (as specified in § 3.2.9.3), the following will apply:

- a) an RSUI requesting control may be received after giving control and before receiving any valid session protocol element. This shall not be regarded as a procedural error and shall be discarded;
- b) an RSUI requesting control may be received after sending a CSE and before receiving an RSEP. This shall not be regarded as a procedural error and shall be discarded.



a) These "change control" commands and responses do not apply to the OWC mode.

FIGURE 1/T.62

State transition diagram for TWA and OWC session modes

3.4 *Document commands, responses and parameters*

(For summary of document commands and responses, see Table 2/T.62.)

- 3.4.1 *Command document start (CDS)*
- 3.4.1.1 The CDS indicates the start of a document to the receiver of this command. It also indicates the start of the first page.
- 3.4.1.2 Command parameters are:
 - a) Service interworking identifier not a mandatory field (see § 3.5.2).

Note - When communicating with a conversion facility, an identifier may be required for:

- i) Teletex/telex interworking the identifier will indicate that the document(s) has been prepared in accordance with the rules given in Recommendations F.200, T.90 and T.91;
- ii) Teletex/Videotex interworking for further study;
- iii) Teletex/facsimile interworking for further study.
- b) *Document type identifier* not a mandatory field. If a normal document is used, this parameter shall not be indicated. If other types of document are used, the inclusion of this field is obligatory (for a description of types of document, see Annex E).
- c) Document reference number (see § 4.2.9).
- d) *Indication of required terminal capability* (standardized or private use) not a mandatory field, however, this parameter must be used if standardized optional terminal capabilities are required for the document.
- e) Session user data this non-mandatory parameter is used to convey data of the presentation and/or application protocol(s). All information necessary to negotiate the document interchange protocol parameters defined in the T.400 Series of Recommendations is contained in this parameter field.
- f) Private use parameters (not mandatory) definition of such parameters is not standardized.
- 3.4.1.3 There is no response to CDS except in the case of an error, for which RDGR is used.
- 3.4.2 Response document general reject (RDGR)

3.4.2.1 The RDGR may be used by the sink to indicate to the source that a procedural error has occurred and that resynchronization is requested. The bit pattern of command or response up to and including the error shall be returned to the source. Only the first detected error within a command or response must be processed by this method.

- 3.4.2.2 The response parameter is the bit pattern required by § 3.4.2.1.
- 3.4.2.3 It is the responsibility of the terminal receiving an RDGR response to take appropriate action.

Note - Use of RDGR for other kinds of error is for further study.

3.4.3 *Command document continue (CDC)*

3.4.3.1 The CDC indicates to the receiver of this command the continuation of transmission of a document that has previously been partially transmitted.

- 3.4.3.2 Command parameters are:
 - a) *Document linking information*, in order to identify the previous transmission of the partial document, including:
 - the checkpoint reference number (see § 4.2.7) from which the transmission is being continued;
 - the document reference number, which shall be the same as the document reference number in the CDS;
 - the session reference information identifying the session in which the first part of the document was sent.

Note 1 – If several continuations are required to complete transmission of a document, all are linked to the partial transmission in which the CDS was used. The sequence of checkpoint reference numbers is then used to identify the correct sequencing for linking and all such continuations shall be transmitted in this sequence.

Note 2 - It is the responsibility of the receiving terminal to discard any text information that has been duplicated in the process of continuation of an interrupted transmission.

Note 3 – The checkpoint reference number appearing in CDC is the last checkpoint reference number for which a positive acknowledgement has been received.

- b) Service interworking identifier not a mandatory field (see the note under § 3.4.1.2 a) for CDS).
- c) *Document type identifier* not a mandatory field. If a normal Teletex document is used, this parameter shall not be indicated. If other types of document are used, the inclusion of this field is obligatory (for a description of types of document, see Annex E).
- d) Document reference number (of the current session): see § 4.2.9.
- e) Optionally, any other parameter field(s) that appeared in the CDS command at the start of the document may be repeated as parameter(s) in CDC. Indication of required terminal capability is mandatory if standardized optional terminal capabilities are required for the document. A terminal receiving a CDC that does not contain all of the terminal capabilities should not reject the continuation of the document.
- f) Session user data this non-mandatory parameter is used to convey data of the presentation and/or application protocol(s). All information necessary to negotiate the document interchange protocol parameters defined in the T.400 series of Recommendations is contained in this parameter field.
- 3.4.3.3 There is no response to CDC except in the case of an error, for which RDGR is used.

3.4.4 *Command document capability list (CDCL)*

3.4.4.1 The CDCL initiates an exchange of information to enable a check of the terminal capabilities (both standardized and private use). The command shall include a list of receiving capabilities that may be needed at the receiver by the sender of this command.

3.4.4.2 The command may also be used to investigate the storage capability of the remote terminal. The required amount of storage (given in kilo-octets) is indicated in a parameter of the command in this case.

3.4.4.3 Command parameters are the list of receiving capabilities and the required amount of storage.

3.4.4.4 The CDCL command should only be invoked outside document boundaries.

3.4.4.5 The CDCL command may be used to negotiate the value of the inactivity timer. The value of the inactivity timer that the sender of this command wishes to use is indicated in a parameter field of this command.

3.4.4.6 The CDCL command may be used to convey the session user data of the presentation and/or application protocol(s). All information necessary to negotiate the document interchange protocol parameters defined in the T.400 series of Recommendations is contained in this parameter field.

3.4.4.7 The CDCL command may be used to ascertain compatibility regarding the use of non-standardized capabilities.

3.4.5 Response document capability list positive (RDCLP)

3.4.5.1 The RDCLP response is sent by the receiver of a CDCL command as a positive acknowledgement of the command.

3.4.5.2 If the CDCL command includes the information to check the non-basic Teletex terminal capabilities, the corresponding RDCLP response has to contain one of the following:

- a) confirmation that all the requested capabilities are available at the receiver by use of "acceptance of CDCL parameters";
- b) a list of capabilities available at the receiver by use of the "non-basic Teletex terminal capabilities" parameter. This will indicate one of the following:
 - the complete list of all the capabilities requested in the CDCL;
 - a list of the requested capabilities that are available at the receiver. Absence of parameters associated with non-basic capabilities indicated that the requested capabilities are not available at the receiver;
 - a complete list of non-basic receiving capabilities, irrespective of the requested ones.
- 3.4.5.3 If the CDCL is used for memory negotiation, one of the following shall be included in the RDCLP:
 - a) confirmation that the amount of memory requested is available and has been reserved;
 - b) indication of the available (and reserved) amount of memory (in kilo-octets);

- c) indication the requested memory capacity cannot now be reserved;
- d) indication that the available memory cannot be estimated (through either explicit indication or the absence of a memory negotiation parameter in a response to a response to a CDCL with a memory request).

Note 1 – Storage that has been reserved by the CDCL command can be released after session termination or when a new CDCL with storage requirement indication is received.

Note 2 - The use of the memory negotiation parameter in RDCLP (i.e. indicating that the memory cannot be estimated) when not present in CDCL is not prohibited. Therefore, reception of such RDCLP in response to CDCL is not to be regarded as an error.

3.4.5.4 The RDCLP response may be used to negotiate the value of the inactivity timer. The value of the inactivity timer that the sender of this response wishes to use is indicated in a parameter field of this response.

3.4.5.5 The RDCLP response may be used to convey the session user data of the presentation and/or application protocol(s). All information necessary to negotiate the document interchange protocol parameters defined in the T.400 Series of Recommendations is contained in this parameter field.

3.4.5.6 The RDCLP response may be used to ascertain compatibility regarding the use of the non-standardized and private use capabilities.

3.4.6 *Command document end (CDE)*

3.4.6.1 The CDE shall be used to indicate to the receiver of this command the end of a document. It also represents the final checkpoint to which a response shall be made.

3.4.6.2 The command parameter is the checkpoint reference number.

3.4.6.3 The RDPBN shall be used as the negative response to the checkpoint in CDE.

3.4.7 *Response document end positive (RDEP)*

3.4.7.1 The RDEP gives a positive acknowledgement to the last checkpoint. In the basic services, this is the last page reference number.

3.4.7.2 The RDEP shall also indicate that the receiver:

- a) has not detected any error;
- b) accepts responsibility for the received document; and
- c) is ready to receive a new CDS or CDC.
- 3.4.7.3 The RDEP shall include as a parameter the checkpoint reference number of the CDE.

3.4.7.4 Only if the sink terminal has sent an RDEP and received either a valid CDS, CDC, CDCL, CSE or CSCC, is it certain that the source terminal will not use error recovery procedures regarding the preceding document. In all other cases it can happen that after sending RDEP a repetition of pages takes place and the duplications may be deleted by the sink terminal.

3.4.8 *Command document discard (CDD)*

3.4.8.1 The CDD shall be used to indicate to the receiver of this command the abnormal ending of a document and that the receiver of the command is not held responsible for the part of the document received so far. Therefore, as a local function outside these control procedures, the receiver can delete the part of the text received.

Note 1 - CDD is an invitation to discard the whole of the document and not merely the part of the document transmitted since the last CDC.

Note 2 - The receiving terminal may discard the document from its memory and/or indicate to the operator that this part of the document has no value.

Note 3 – The implementation of this function for Group 4 facsimile is for further study.

3.4.8.2 The reason for sending the CDD command may be given as a CDD parameter. If used, only one of the following reasons shall be indicated:

- a) unable to continue a session (e.g. due to memory full, out of recording paper);
- b) sequence error;
- c) local terminal error;
- d) unrecoverable procedural error;

e) no specific reason stated (used for reasons other than those listed).

3.4.8.3 The CDD may only be used to terminate the current document, instead of using CDE or CDR. It cannot be used after a CDR has been sent (see \S 4.3.2).

3.4.8.4 The receiver of a CDD is allowed to delete the received part of the document, but has no obligation to do so. If the text is not deleted, the operator shall be informed.

- 3.4.8.5 No negative response to CDD is allowed except for error conditions where RDGR applies.
- 3.4.9 *Response document discard positive (RDDP)*

3.4.9.1 The RDDP acknowledges the CDD and indicates that the receiver of the command is ready to receive a new CDS or CDC.

3.4.10 *Command document resynchronize (CDR)*

3.4.10.1 The CDR shall be used by the source to indicate to the sink the point of resynchronization. If used within a document it shall abnormally end that document.

3.4.10.2 The reason for an abnormal ending of a document may be given as a CDR parameter. If used, only one of the following reasons may be given:

- a) unable to continue a session (e.g. due to memory full, out of recording paper);
- b) sequence error;
- c) local terminal error;
- d) unrecoverable procedural error;
- e) no specific reason stated (used for reasons other than those listed).

3.4.10.3 No negative response to CDR is allowed except for error conditions where RDGR applies.

3.4.11 Response document resynchronize positive (RDRP)

3.4.11.1 The RDRP is sent by the receiver of a CDR as a positive acknowledgement of the command.

3.4.11.2 If RDRP is used within a document, it confirms to the sender of a CDR that the sender of RDRP has already accepted responsibility for the received document (up to the last checkpoint for which a positive acknowledgement has been sent). It does not indicate that the sender of RDRP will be able to perform linking of the following parts of the interrupted document.

3.4.11.3 The control procedures provide a means for resuming transmission of an interrupted document.

3.4.11.4 The linking of the parts of an interrupted document is a local operation at the receiver and is therefore not within the responsibility of the control procedures. Thus these procedures cannot guarantee that this linking of parts of a document will be effected.

3.4.12 Command document user information (CDUI)

3.4.12.1 The CDUI indicates to the receiver of this command that the associated information is to be interpreted as the user text information field being conveyed.

3.4.12.2 The basic services do not require any parameter for CDUI. The procedure provides means for adding parameters. Any such need is for further study. For the basic services a CDUI has to contain a user information field. The need for having CDUIs without information field is for further study.

3.4.12.3 Several CDUIs may be used to transfer the contents of one page.

3.4.13 *Command document page boundary (CDPB)*

3.4.13.1 The CDPB indicates to the receiver the boundary between pages. It also indicates a checkpoint for error recovery purposes (see § 4). CDPB invites the sink to accept responsibility for the previously received page.

3.4.13.2 The CDPB command parameter is the checkpoint reference number, which, in the basic services, is the page reference number.

3.4.13.3 The checkpoint reference number appearing in the first CDPB after a CDC is the one appearing in this CDC plus one.

3.4.14 *Response document page boundary positive (RDPBP)*

3.4.14.1 This response shall be used to indicate that the receiver accepts responsibility for that page.

3.4.14.2 Response parameters are:

- a) a mandatory parameter giving the checkpoint reference number (see § 3.4.13.2 above);
- b) a mandatory parameter indicating whether or not the ability of the receiving terminal to continue to accept traffic is jeopardized (e.g. whether or not the memory threshold has been reached).

3.4.15 *Response document page boundary negative (RDPBN)*

3.4.15.1 This response shall be used to indicate that the receiver does not accept the responsibility for that page for example, due to a detected error or other failure.

Note - This response may also be returned at any point within the document boundary after the receipt of CDS.

- 3.4.15.2 The value of the mandatory parameter giving the reason for a negative response should be one of the following:
 - a) unable to continue a session (e.g. due to memory full, out of recording paper);
 - b) sequence error;
 - c) local terminal error;
 - d) unrecoverable procedural error;
 - e) no specific reason stated (used for reasons other than those listed).

3.5 *General rules for document elements of procedure*

3.5.1 When a document has been either started by CDS or continued by CDC, it must be terminated by either CDE, CDR or CDD prior to sending the next CDS or CDC.

- 3.5.2 The following rules relate to the CDS and CDC parameters:
 - a) the service interworking parameter may be used to indicate that the document is suitable for interworking; however, use of this parameter is mandatory in the case of service interworking;
 - b) absence of the document type identifier indicates that the associated document is a normal document.

3.5.3 No negative response to CDS or CDC may be sent after the sending of a positive response to any checkpoint within that document. No negative response may be sent to any document commands once the checkpoint associated with those commands has been positively acknowledged.

3.5.4 With regard to the responses to CDPB (RDPBP or RDPBN), the receiver may reject reception for a detected error, but the receiver is not obligated to monitor for errors in the document. Once a page has been positively acknowledged, any error recovery for the subsequent detection of an error is beyond the scope of these control procedures.

3.5.5 If, during the transmission of a document, there is an interruption of the transport connection or session such that another call and/or session establishment is needed, the following rules apply.

- a) In the case that a document transmission is initiated by a CDS and no checkpoint is positively acknowledged during that document transmission:
 - the receiving terminal shall treat the failure as if a CDD had been received and an RDDP had been sent;
 - the sending terminal shall treat the failure as if a CDD had been sent and an RDDP had been received.
- b) In other cases:
 - the receiving terminal shall treat the failure as if a CDR had been received and an RDRP had been sent;
 - the sending terminal shall treat the failure as if a CDR had been sent and an RDRP had been received.

3.5.6 If, during the transmission of a document, an abnormal condition except those described in § 3.5.5 takes place, the following rules apply:

a) in the case that a document transmission is initiated by CDS command and no checkpoint is positively acknowledged, either a CDD or a CDR command should be used. If a CDR is used, it should be interpreted as a CDD;

b) in other cases, a CDD or CDR should be used.

3.5.7 When a source terminal receives an RDPBP with the receiving ability jeopardized (RAJ) parameter set to 1 during a document transmission, it may continue to transmit one or more pages until the window is closed. In this context the following rules apply:

- a) if the source subsequently receives an RDPBP with the RAJ parameter set to 0, it will be able to continue transmission;
- b) if the source subsequently receives an RDPBN indicating "memory overflow", the document transmission should be terminated abnormally; e.g. exchange of either CDD/RDDP or CDR/RDRP.

Note – In other contexts (e.g. window size of 1), the session may be terminated abnormally due to expiration of an inactivity timer. However, this requires further study.

3.5.8 When a sink terminal sends an RDPBP with the receiving ability jeopardized parameter set to 1, and subsequent memory overflow results in sending RDPBN, the reason code "unable to continue the session" has to be indicated.

3.6 *Rules for document state diagrams*

3.6.1 *General*

3.6.1.1 The rules common to all state diagrams are given in Annex D.

3.6.1.2 For any error a terminal is permitted to send CSA. If this procedure is not used, the following rules shall apply.

3.6.2 *Rules for the sending protocol* (see Figure 2/T.62)

3.6.2.1 Any command or response received in state 1 shall cause an abnormal end of the session and sending of CSA.

3.6.2.2 Reception of any command or response not shown as allowed in the state diagram in states 2 to 11 shall cause CDR or CDD to be sent in accordance with § 3.5.6.

3.6.2.3 Reception of any command or response except RDCLP in state 14 shall cause CDR to be sent.

3.6.2.4 In state 13 receipt of RDRP or RDDP will cause a transition to state 1. Any other command or response will be discarded.

3.6.2.5 The demand response timer started when state 13 is entered is only reset when a valid response is received.

3.6.3 *Rules for the receiving protocol* (see Figure 3/T.62)

3.6.3.1 Reception of any command or response except CDS, CDC, CDCL, CDR or CDD in state 1 shall cause RDGR to be sent.

3.6.3.2 In state 12 receipt of CDR or CDD will cause a transition to state 13. Any other command or response received will be discarded.

3.6.3.3 Reception of any command or response not allowed in the state diagram or any invalid parameters or parameter values in state 2 to 11 may cause RDGR to be sent.

3.6.3.4 The inactivity timer started when state 12 is entered is only reset when a valid command is received.

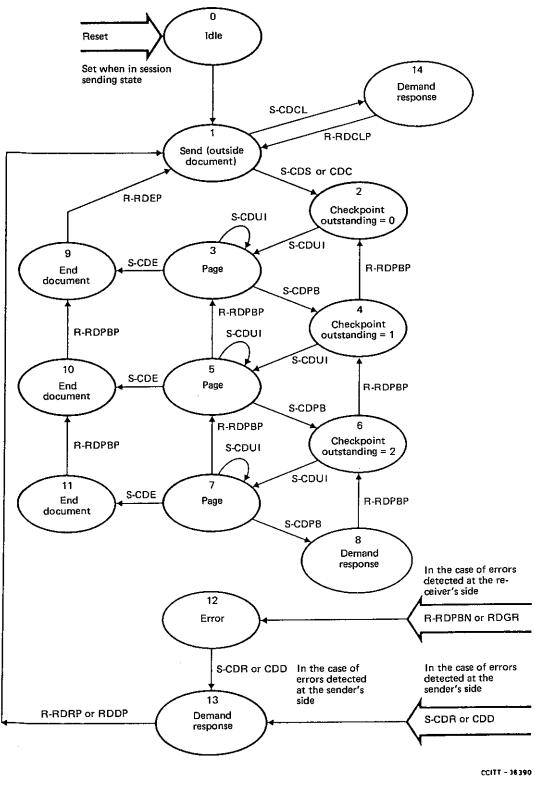


FIGURE 2/T.62

Document state transition diagram for a window size of 3 (sending protocol)

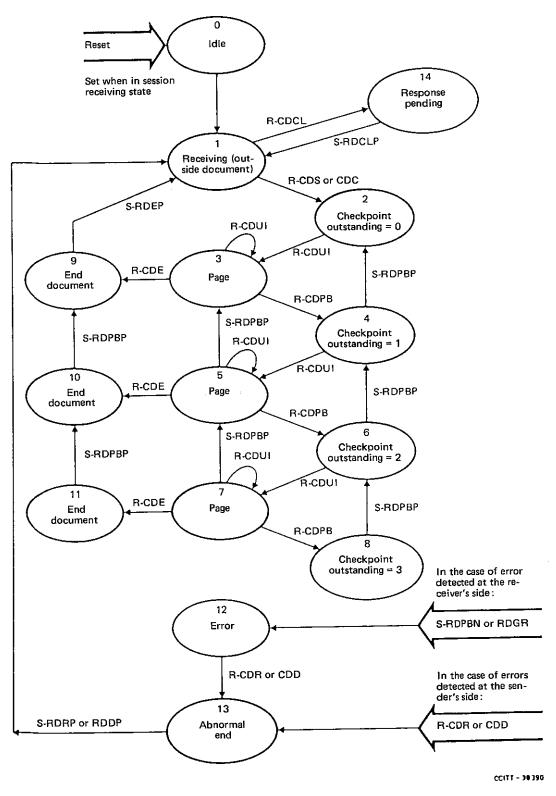


FIGURE 3/T.62

Document state transition diagram for a window size of 3 (receiving protocol)

4 Error recovery

4.1 *General principles*

- 4.1.1 During a session, each partner is responsible for monitoring for the correct operation of the following:
 - a) maintenance of the currently agreed source/sink relationship;
 - b) proper use of the command/response procedural sequences as described in the state diagrams and rules for operation (see § 3.6);
 - c) detection of any period of inactivity in excess of the inactivity timer value as determined by negotiation (indicating, for example, a failure or other inability to continue productive use of the session);
 - d) detection of a period of time in excess of the demand response timer value in which the remote terminal has failed to issue a response.

Note – Negotiation of the demand response timer value is for further study.

- 4.1.2 The following rules apply to the negotiation of the value of the inactivity timer;
 - a) an inactivity timer value different from 60 seconds will apply only if this parameter is indicated by both terminals, i.e. negotiation, at session establishment (via CSS/RSSP) or document boundaries (via CDCL/RDCLP);
 - b) if both terminals indicate an inactivity timer value the following rules apply for the duration of the session or until a subsequent negotiation has taken place:
 - i) The smaller of the two values applies when both values are greater than or equal to 60 seconds.
 - ii) The larger of the two values applies when both values are less than 60 seconds.
 - iii) A timer value of 60 seconds applies if one value is above and one is below 60 seconds.

4.1.3 Upon detection of any failure to maintain proper operation as described in § 4.1.1, use of the error recovery procedures defined for each state is mandatory; or, where such error recovery procedures are not specifically defined, session termination (abnormal end) is mandatory. In the event of an error, this control procedure allows for repeated transmission of information. The number of repetitions should be limited by the sender and may be zero.

4.2 *Rules for checkpointing*

4.2.1 After an abnormal termination of a document, for recovery in the same session the checkpoint reference number and the document reference number are required in order to identify unambiguously the point from which to recover.

4.2.2 A new session (and call) has to be initiated after abnormal termination of a document where recovery is to be effected in a subsequent session or after an abnormal termination and/or interruption of the call. The information required in order to identify unambiguously the point from which to recover is:

- a) the reference for the interrupted session;
- b) the document reference number; and
- c) the checkpoint reference number.
- 4.2.3 In the basic services a checkpoint must be inserted at each page boundary using CDPB.

4.2.4 If a negative response is received to a command representing a checkpoint, the transmission must be interrupted by sending a CDR or CDD.

4.2.5 Within a document, a final checkpoint will be represented by the CDE. Transmission of another document is not permitted until the response to this command has been received.

4.2.6 No other checkpointing is permitted in the basic service.

4.2.7 Each command representing a checkpoint shall contain a parameter showing the reference number. Each such command calls for a response, which shall contain a parameter showing the checkpoint reference number to which that response applies. Each checkpoint in the CDPB must be explicitly acknowledged and the acknowledgements must be in the right sequence.

4.2.8 Checkpoint reference numbers shall be assigned as decimal digits starting from 001 and sequentially incremented by one for each checkpoint within a document. The number does not necessarily have to comprise 3 digits and leading zeros do not necessarily have to be transmitted. In all cases, the leading zeroes must be ignored.

4.2.9 Document reference numbers (DRNs) shall be assigned as decimal digits, preferably, but not necessarily, starting from 001. DRNs shall then sequentially be incremented by one for each successive document. DRNs shall be assigned to all documents in a session, irrespective of the document type identifier or whether CDS or CDC is used as the initiating command. The number does not necessarily have to comprise 3 digits and leading zeros do not necessarily have to be transmitted. In all cases, the leading zeroes must be ignored.

Note – In order to uniquely identify the documents exchanged, it is recommended that the same DRNs should not appear within a session. However, it is noted that some existing terminals may cause duplication of DRNs when documents are exchanged in both directions.

4.2.10 The sum of the numbers of digits contained in the checkpoint reference number and the document reference number shall not exceed six, to permit printing in the available space in the call identification line as defined in Recommendation F.200. There is no constraint on the maximum number of digits in either number, as long as this limitation is not exceeded.

4.3 *Acknowledgement window*

4.3.1 In the basic Teletex service the sender is prohibited from exceeding an acknowledgement window size of three. The maximum window size may be negotiated during session establishment using the parameters of the CSS command and the corresponding response (see § 5.7.2.6).

4.3.2 In the Group 4 facsimile service, indication of window size parameters in both CSS command and the corresponding response is required (see §§ 3.3.2.7 and 5.7.2.6).

4.3.3 There are two ways that the sender is permitted to recover from an interrupted transmission:

- a) a cancellation is achieved by the subsequent use of CDC and CDD commands and the transmission will be resumed by the CDS command;
- b) the sender may resume by use of CDC command, starting at the point in the text of the last checkpoint for which an acknowledging response was received.

On this basis, the receiver must be able to resume reception at a checkpoint ranging from the last acknowledged checkpoint to the last acknowledged checkpoint plus one, minus the window size.

4.3.4 The window mechanism has been introduced in order to allow continuous transmission of pages. The window mechanism may also be used by the receiving terminal to resolve local time problems without affecting the continuous transmission.

Note – For efficiency reasons, the receiving terminal will transmit the response to acknowledge outstanding checkpoint(s) as soon as possible.

4.3.5 The design of a terminal should be such that continuous reception is possible in normal operation of the terminal (e.g. with an average Teletex page content of 1600 octets). The use of the window mechanism should take into account the quality of service requirements in Recommendations F.200 and F.161.

4.3.6 If transmission flow control is needed, it shall be provided by the transport service.

5 Coding

5.1 *Definition of terms used in coding*

5.1.1 command identifier (CI) or response identifier (RI)

F: identificateur de commande (IC) ou de réponse (IR)

S: identificador de instrucción (II) o identificador de respuesta (IR)

The heading information that identifies the command or response concerned.

5.1.2 **length indicator (LI)**

F: indicateur de longueur (IL)

S: indicador de longitud (IL)

Represents the length in octets of an associated field or group of fields.

5.1.3 parameter identifier (PI)

F: identificateur de paramètre (IP)

S: identificador de parámetro (IP)

Indicates the type of information contained in an associated field or group of fields.

5.1.4 parameter group identifier (PGI)

F: identificateur de groupe de paramètres (IGP)

S: identificador de grupo de parámetros (IGP)

A special case of a parameter identifier, which indicates that the associated field consists entirely of a group of parameters, each identified by a parameter identifier.

5.1.5 parameter value (PV)

F: valeur de paramètre (VP)

S: valor de parámetro (VP)

The information that represents the value of the parameter identified by either a PI or PGI.

5.1.6 **field**

F: champ; domaine

S: campo

Either a group of one or more bits within a single octet or a group of one or more octets, used to represent a particular set of information.

5.2 Principles of coding

5.2.1 The coding of session commands, responses and parameters is independent of the coding of document commands, responses and parameters and vice versa.

5.2.2 Binary field encoding principles have been used to allocate bit patterns for the CI, RI, PGI and PI.

5.2.3 The first section of a session or document field consists of either a CI or an RI. Each CI or RI is always immediately followed by an LI.

5.2.4 Bits of an octet are numbered 8 to 1 where bit 1 is the low order bit and is transmitted first. Octets of a session or document field are consecutively numbered starting from 1 and transmitted in this order.

5.2.5 The value of an LI is a binary number that represents the total length of the immediately following parameter field(s) in octets. The value of the LI does not include either itself or any subsequent user information.

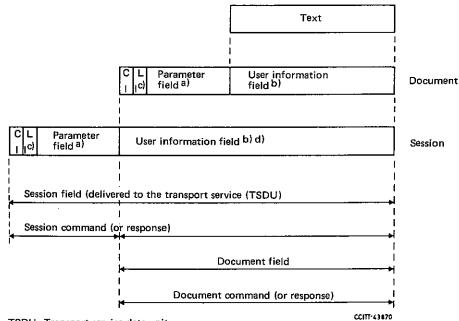
5.2.6 If a parameter field indicated by a PGI appears within a parameter field initiated by a PGI, the PV field of the nested PGI field may not extend beyond the end of the PV of the enclosing PGI field.

5.2.7 To decode CI, RI, PGI and PI, all the bits of the identifier must be considered.

5.2.8 The format of a parameter field initiated by a PGI is the same as the format of such a field initiated by a PI except that the entire PV field consists of a sequence of one or more parameter fields, each of which is initiated by either PI or PGI.

5.2.9 The absence of non-mandatory PI or PGI indicates that no such functions are available. Therefore PIs or PGIs with LI set to zero should be avoided.

5.2.10 Figures 4/T.62, 5/T.62 and 6/T.62 illustrate the coding principles.



TSDU Transport service data unit

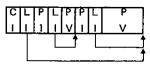
- a) Present only if $LI \neq 0$.
- b) Present only after user information commands (or responses).
- c) See § 5.2.5.
- d) See § 1.2.1.

FIGURE 4/T.62

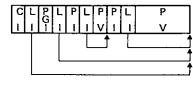
Illustration of the relationship between session and document commande/responses



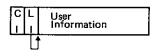




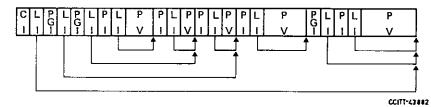
a) LI = 0 (i.e. no parameter field) b) L1 = 3 and 1 respectively means one parameter of one octet value c) Two parameters of 1 and 3 octets respectively, L1s are 8, 1 and 3 respectively



d) One PGI with two enclosed PIs



e) The most simple carrier of user information



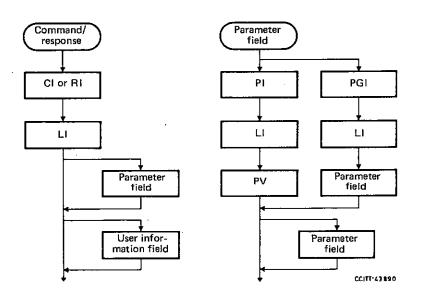
f) Example of complex use of PGIs

Note I - In every case the CI can be replaced by an RI.

Note 2 - Any PI or PGI may be omitted when it is not used for conveying information (i.e. parameter values). PIs and PGIs within the same nesting level are put in order of increasing binary value.

FIGURE 5/T.62

Examples of command/response structure



Note - This figure may need further study.

FIGURE 6/T.62

Allowable sequences of units within a command or response

5.3 *Coding of length indicators*

5.3.1 The value of an LI is a binary number that represents the total length in octets of the immediately following CI, RI, PI and/or PGI fields. The value of the LI does not include either itself or any subsequent user information, as noted in § 5.2.5 above.

5.3.2 The basic LI consists of a single octet with a maximum value of 254 in decimal (i.e., a binary value of 11111110).

5.3.3 If the first octet of the LI is 255 decimal (i.e., a binary value of 11111111), this indicates that the value of the LI is contained in the next two following octets allowing a maximum value of 65 535 octets.

5.3.4 Within any octet, the highest order bit is bit 8 with the remaining bits assigned in descending order. Where the length value is represented in two octets, the first contains the higher order bits.

5.4 *Coding of command and response identifiers for session elements*

5.4.1 The coding of CI and RI for session commands and responses is shown in Table 4/T.62.

5.4.2 Apart from private use, the codes of the commands and responses in Table 4/T.62 are assigned in such a way that the bits may be interpreted as follows:

Bit 1	1 = Command	0 = Response
Bit 2	1 = Positive	0 = Negative (for responses)
Bit 3	1 = Initiate	0 = Stop (for most commands)
Bits 4, 5	 Session Session Interaction Session user 	

Bits 6, 7, 8 Set to zero (except for private use) and reserved for extension.

Note – If possible, this binary field coding structure should be followed in making future code assignments, but this is not mandatory if the number of available code combinations is insufficient. Therefore, it is not intended as a guide for implementation.

5.4.3 One or more of the non-allocated values are to be reserved for future extension. The method of future extension is for further study.

5.5 Coding of command and response identifiers for document elements

5.5.1 The coding of command and response identifiers for document commands and responses is shown in Tables 5/T.62 and 6/T.62 respectively.

5.5.2 Apart from private use, the codes of the commands and responses in Tables 5/T.62 and 6/T.62 are assigned in such a way that the bits may be interpreted as follows:

Bit 1	1 = Command	0 = Response
Bit 2	1 = Positive	0 = Negative (for responses)
Bit 3	1 = Initiate	0 = Stop (for most commands)
Bits 4, 5, 6	111, 110, 101 100 011 010 001 000	Document Reserved Page Reserved Reserved for recovery unit Text
	a	1.0.0.

Bits 7, 8 Set to zero, and reserved for future extension.

5.5.3 With regard to future extension, see the note in § 5.4.2 and § 5.4.3 above.

TABLE 4/T.62

Command and response identifiers for session elements

Command/response				Bit n	umber			
	8	7	6	5	4	3	2	1
CSS	0	0	0	0	1	1	0	1
CSE	0	0	0	0	1	0	0	1
CSA	0	0	0	1	1	0	0	1
CSCC	0	0	0	1	0	1	0	1
CSUI	0	0	0	0	0	0	0	1
RSSP	0	0	0	0	1	1	1	0
RSSN	0	0	0	0	1	1	0	0
RSEP	0	0	0	0	1	0	1	0
RSAP	0	0	0	1	1	0	1	0
RSCCP	0	0	0	1	0	1	1	0
RSUI	0	0	0	0	0	0	1	0
Reserved for private use	1	1	1	· 1	x	х	x	x

TABLE 5/T.62

Coding for document command identifiers

Command				Bit nu	ımber			
	8	7	6	5	4	3	2	1
CDS	0	0	1	0	1	1	0	1
CDC	0	0	0	1	1	1	0	1
CDE	0	0	1	0	1	0	0	1
CDR	0	0	0	1	1	0	0	1
CDD	0	0	1	1	1	0	0	1
CDPB	0	0	1	1	0	0	0	1
· CDCL	0	0	1	1	1	1	0	1
CDUI	0	0	0	0	0	0	0	1
Reserved for private use	1	1	1	1	x	x	х	х

TABLE 6/T.62

Response				Bit n	umber			
	8	7	6	5	4	3	2	1
RDEP	0	0	1	0	1	0	1	0
RDRP	0	0	0	1	1	0	1	0
RDDP	0	0	1	1	1	0	1	0
RDPBP	0	0	1	1	0	0	1	0
RDPBN	0	0	1	1	0	0	0	0
RDCLP	0	0	1	1	1	1	1	0
RDGR	0	0	0	0	0	0	0	0
Reserved for private use	1	1	1	1	x	x	x	x

Coding for document response identifiers

5.6 *Coding of parameter group identifiers and parameter identifiers*

5.6.1 The coding of PGIs and PIs for session commands and responses is shown in Table 7/T.62. The coding of the PGIs and PIs for document commands and responses is shown in Table 8/T.62.

5.6.2 Tables 9/T.62 and 10/T.62 list the PGIs and PIs for each command and response for the session and document elements of procedure together with an indication of whether the PGIs and PIs concerned are mandatory or not.

5.6.3 Where a PI is allocated to a particular PGI this is shown in Table 7/T.62 or 8/T.62. Some PIs are not allocated to a PGI and are used as required. Some PIs may be used without preceding PGIs as defined in Tables 9/T.62 and 10/T.62.

5.6.4 The codes of these PGIs and PIs are assigned in such a way that the binary field consisting of bits 8, 7 and 6 may be interpreted as follows:

Bits 876		
000	Session related	
001	Document related	(These document related PGIs and PIs may possibly be of use to other services.)
010	Document related (for	or Teletex)
011 100 101	Reserved	
110	User data	
111	Private use	
The binar	ry field consisting of bits	s 5 and 4 may be interpreted as follows:
Bits 54		
00 P 01 P 10 P	I	

11 PI

The binary field consisting of bits 3, 2 and 1 is used to extend the PGIs when set to 000.

Note – If possible, this binary field coding structure should be followed in making future code assignments, but this is not mandatory if the number of available code combinations is insufficient. Therefore, it is not intended as a guide for implementation.

5.6.5 PGIs and PIs within the same nesting level should be put in the order of increasing binary value. The coding order of PGIs and PIs included in each command or response is defined in Tables 9/T.62 and 10/T.6.

- 5.6.6 The following rules shall apply to the private use and presently not defined parameters:
 - a) these parameters, if present in CSS or CDCL (or their corresponding responses), shall not lead to procedural errors;
 - b) the use of these parameters in other commands or responses must be negotiated upon in advance by CSS or CDCL and their corresponding responses (see § 3.3.2.3);
 - c) presence of these parameters "unexpectedly" in elements other than CSS, RSSP, CDCL or RDCLP may result in procedural errors;
 - d) the absence of a parameter of this kind in a response to CSS or CDCL must be interpreted as an indication that the terminal is not capable of handling any of these functions.

5.7 *Parameter values*

5.7.1 *General*

- 5.7.1.1 Unless otherwise specified the following rules apply to the fields containing parameter values (PV):
 - a) Where a binary number is used to represent a value, the highest order bit of each octet is bit 8 with the remaining bits assigned in descending order. Where a binary value is represented by more than one octet, the first octet contains the highest order bits, with successive octets assigned in descending order;
 - b) All bits reserved for future standardization shall be set to zero;
 - c) Where a PV contains graphic characters that may be printed or displayed, they shall be in the intended printing/display sequence and shall be coded as defined in Recommendation T.61;
 - d) For a PGI designated for extension, the PIs and/or PGIs included in the parameter field do not necessarily conform to the following assignments of PI and PGI values.
- 5.7.1.2 Assignment of coding to the various parameter values is shown in the following paragraphs.
- 5.7.2 Session related parameters

Note – The following paragaphs include either session related or both session and document related parameters.

5.7.2.1 Terminal identifier of the called terminal

A sequence of graphic characters as defined in Recommendation F.200.

5.7.2.2 Terminal identifier of the calling terminal

A sequence of graphic characters as defined in Recommendation F.200.

5.7.2.3 Date and time

A sequence of graphic characters as defined in Recommendation F.200.

5.7.2.4 Additional session reference number

A fixed length sequence of two decimal digits as coded in Recommendation T.61.

TABLE 7/T.62

Coding of session PGIs and PIs

Parameter group ide	ntifi	er (1	PGI)				-		Parameter identi	fier	(PI)					
Name or function	8	7		t п 5			2		1	Name	8	7	B 6	it n 5			2	1
Reserved for extension	0	0	0	0	0	0	0		0			<u> </u>						
Session reference	0	0	0	0	0	0	0		1	Terminal identifier of the called terminal	0	0	0	0	1	0	0	1
										Terminal identifier of the calling terminal	0	0	0	0	1	0	1	0
										Date and time	0	0	0	0	1	0	1	1
										Additional session reference number	0	0	0	0	1	1	0	0
Non-basic session capabilities	0	0	0	0	0	0	1		0	Miscellaneous session capabilities	0	0	0	0	1	1	0	1
										Window size	0	0	0	0	1	1	1	0
										Service identifier	0	0	0	0	1	0	0	0
										Session control functions	0	0	0	1	0	0	0	0
No PGI associated with these										Session termination parameter	0	0	0	1	0	0	0	1
PIs									ĺ	Inactivity timer	0	0	0	1	0	0	1	0
										Session service functions	0	0	0	1	0	1	0	0
										Reason	0	0	1	1	0	0	1	0
Non-basic Teletex terminal capabilities	0	1	0	0	0	0	0		1	Control character set	0	1	0	0	1	0	0	1
	-									Teletex page format	0	1	0	0	1	0	1	0
										Miscellaneous Teletex terminal capabilities	0	1	0	0	1	0	1	1
Session user data	1	1	0	0	0	0	0		1									
Private use	1	1	1	0	0	x	x	-	x	Private use	1	1	1	0	1	x	X 1	x
									ſ	Private use	1	1	1	1	0	x	x	x
									ľ	Private use	1	1	1	1	1	x	x	x
										Non-standardized capabilities	1	1	1	0	1	0	0	0

TABLE 8/T.62

Coding of document PGIs and PIs

Parameter group	identifi	ier (PG	I)					'Parameter identifier (PI)
Name or function	8	7			uml 4		2	1	Name Bit number 8 7 6 5 4 3 2
Reserved for extension	0	0	1	0	0	0	0	0	
Document linking	0	0	1	0	0	0	0	1	Terminal identifier of the called 0 0 0 0 1 0 0 terminal
									Terminal identifier of the calling 0 0 0 0 1 0 1 terminal
									Date and time 0 0 0 0 1 0 1
									Additional session reference 0 0 0 0 1 1 0 number
									Document reference number 0 0 1 0 1 0 0
		-							Checkpoint reference number 0 0 1 0 1 0 1
									Inactivity timer 0 0 0 1 0 0 1
									Service interworking identifier 0 0 1 0 1 0 0
									Document reference number 0 0 1 0 1 0 0
									Checkpoint reference number 0 0 1 0 1 0 1
									Acceptance of CDCL 0 0 1 0 1 1 0 0
No PGI associated with these PIs									Storage capacity negotiation 0 0 1 0 1 1 0 1
									Receiving ability jeopardized 0 0 1 0 1 1 1 0
									Reserved 0 0 1 0 1 1 1 1
									Document type identifier 0 0 1 1 0 0 0 0
									Reflect parameter values 0 0 1 1 0 0 0 1
									Reason 0 0 1 1 0 0 1 0
Reserved for extension	0	1	0	0	0	0	0	0	

Parameter group i	dentifi	er (I	PG	i)					Parameter identifier (PI)
Name or function	Name	Name Bit number							
	8	7	6	5	4	3	2	1	8 7 6 5 4 3 2 1
Non-basic Teletex terminal capabilities	0	1	0	0	0	0	0	1	Graphic character set 0 1 0 0 1 0 0 0
									Control character set 0 1 0 0 1 0 0 1
									Teletex page format 0 1 0 0 1 0 1 0
									Miscellaneous Teletex terminal 0 1 0 0 1 0 1 1 capabilities
									Character box height 0 1 0 0 1 1 0 1
									Character box width 0 1 0 0 1 1 1 0
Session user data	1	1	0	0	0	0	0	1	
Private use	1	1	1	0	0	x	х	x	Private use 1 1 1 0 1 x x x
									Private use 1 1 1 1 1 0 x x x
									Private use 1 1 1 1 1 1 x x x
						<u> </u>			Non-standardized capabilities 1 1 1 0 1 0 0 0

TABLE 9/T.62

PGIs and PIs for session elements of procedure

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Session	Parameter group identifi	er (PGI)	Parameter identifier (PI)
command or response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory
	Session reference	m .	Terminal identifier of the calling terminal	m
			Date and time	m
			Additional session reference number	nm
	Non-basic session capabilities	nm	Miscellaneous session capabilities	nm
			Window size (Note)	nm
CSS			Service identifier	m
	· · · · · · · · · · · · · · · · · · ·		Inactivity timer	nm
			Session service functions	nm
	Non-basic Teletex terminal capabilities	nm	Control character sets	- nm
			Teletex page formats	nm
			Miscellaneous Teletex terminal capabilities	nm
	Session user data	nm		
	Private use	nm		
			Non-standardized capabilities	nm
CSE			Session termination parameter	nm
CSA			Session termination parameter	m
CSCC				<u>}</u>
CSUI			Session control functions	nm

Session	Parameter group identifier	(PGI)	Parameter identifier (PI)		
command or response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory	
	Session reference	m	Terminal identifier of the called terminal	m	
			Date and time	m	
			Additional session reference number	nm	
	Non-basic session capabilities	nm	Miscellaneous session capabilities	nm	
			Window size	nm	
RSSP			Service identifier	m	
KSSF			Session control functions	nm	
			Inactivity timer	nm	
			Session service functions	nm	
	Non-basic Teletex terminal capabilities	nm	Control character sets	nm	
			Teletex page formats	nm	
			Miscellaneous teletex terminal capabilities	nm	
-	Session user data	nm			
	Private use	nm			
			Non-standardized capabilities	nm	

TABLE 9/T.62 (continued)

Session command or	Parameter group identifi	er (PGI)	Parameter identifier (PI)		
response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandator	
	Session reference	m	Terminal identifier of the called terminal	m	
			Date and time	m	
			Additional session reference number	nm	
	Non-basic session capabilities	nm	Miscellaneous session capabilities	nm	
			Window size	nm	
			Service identifier	m	
capab		-	Session service functions	nm	
			Reason	nm	
	Non-basic Teletex terminal capabilities	nm	Control character sets	nm	
			Teletex page formats	nm	
			Miscellaneous Teletex terminal capabilities	nm	
	Session user data	nm			
	Private use	nm		<u> </u>	
RSEP					
RSAP					
RSCCP					
RSUI			Session control functions	nm	

TABLE 9/T.62 (end)

Note – This parameter "window size" in CSS, RSSP and RSSN is mandatory for the Group 4 facsimile service (see § 4.3.2), but not mandatory for the Teletex service.

TABLE 10/T.62

PGIs and PIs for document elements of procedure

Document	Parameter group identifier (PGI)		Parameter identifier ((PI)
command or response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory
			Service interworking identifier	nm
			Document reference number	m
			Document type identifier	nm
	Non-basic Teletex terminal capabilities	nm	Graphic character sets	nm
			Control character sets	nm
CDS			Teletex page formats	nm
	,		Miscellaneous Teletex terminal capabilities	nm
			Character box height	nm
			Character box width	nm
	Session user data	nm		
	Private use	nm		

Document command or	Parameter group identi	fier (PGI)	Parameter identifier (PI)			
response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory		
	Document linking	m	Terminal identifier of the called terminal	m		
		Note	Terminal identifier of the calling terminal	m		
		Note	Date and time	m		
			Additional session reference number	nm		
			Document reference number	m		
	· · · · · · · · · · · · · · · · · · ·		Checkpoint reference number	m		
			Service interworking identifier	nm		
CDC			Document reference number (current session)	m		
			Document type identifier	nm		
	Non-basic Teletex terminal capabilities	nm	Graphic character sets	nm		
			Control character sets	nm		
			Teletex page formats	nm		
			Miscellaneous Teletex terminal capabilities	nm		
			Character box height	nm		
			Character box width	nm		
	Session user data	nm				
5	Private use	nm				

Document	Parameter group identifier	(PGI)	Parameter identifier (PI)		
command or response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory	
CDE			Checkpoint reference number	m	
CDR			Reason	nm	
CDD			Reason	nm	
CDPB			Checkpoint reference number	m	
CDUI					
			Inactivity timer	nm	
			Storage capacity negotiation	nm	
	Non-basic Teletex terminal capabilities	nm	Graphic character sets	nm	
			Control character sets	nm	
			Teletex page formats	nm	
CDCL			Miscellaneous Teletex terminal capabilities	nm	
			Character box height	nm	
			Character box width	nm	
	· Session user data	nm .			
	Private use	nm			
			Non-standardized capabilities	nm	
RDEP			Checkpoint reference number	m	

Document	Parameter group identifie	r (PGI)	Parameter identifier (PI)		
command or response identifier	Description	Mandatory or not mandatory	Description	Mandatory or not mandatory	
RDRP					
RDDP					
RDPBP			Checkpoint reference number	m	
			Receiving ability jeopardized	m	
RDPBN			Reason	m	
			Inactivity timer	nm	
			Acceptance of CDCL parameters	nm	
			Storage capacity negotiation	nm	
	Non-basic Teletex terminal capabilities	nm	Graphic character sets	nm	
			Control character sets	nm	
RDCLP			Teletex page formats	nm	
RDCLF			Miscellaneoux Teletex terminal capabilities	nm	
			Character box height	nm	
			Character box width	nm	
	Session user data	nm			
	Private use	nm			
			Non-standardized capabilities	nm	
RDGR			Reflect parameter values	m	

TABLE 10/T.62 (end)

Note – These PIs are required only if linking is attempted in a new session.

5.7.2.5 Miscellaneous session capabilities

Bit 1 of the first octet set to 1 indicates the terminal capability for two-way simultaneous information transfer.

Bit 2 of the first octet set to 1 indicates the terminal capability for session suspension.

Bit 3 of the first octet set to 1 indicates the terminal capability for interactive operation.

All other bit values are reserved for future standardization.

5.7.2.6 Window size

A binary number of fixed length of one octet, with a minimum value of one and a maximum value of 255 in decimal (i.e., a binary value of 11111111). The default value is three in decimal (i.e., a binary value of 00000011).

5.7.2.7 Service identifier

The coding for the service identifier is as follows:

Bits 87654321 Service 00000001 Telematic

All other encodings are for further study.

5.7.2.8 Session control functions

When used with a response, i.e. either RSSP or RSUI, the following bit assignments are defined in the first octet:

- bit 1 set to 1 indicates request control (as defined in this Recommendation); a)
- all other bits are reserved for future standardization. b)
- 5.7.2.9 Session termination parameter

Bit 1 of the first octet set to 1 indicates that the transport connection shall be cleared (default value). When set to 0 it indicates that the connection should not be cleared.

Bit 2 of the first octet set to 1 indicates a local terminal error.

Bit 3 of the first octet set to 1 indicates an unrecoverable procedural error.

Bit 4 of the first octet set to 1 indicates that no reason is given.

All other bits are reserved for future standardization. The CSE command uses only bit 1; all other bits shall be set to 0.

5.7.2.10 Reason (session or document)

A field indicating the reason for sending the associated command or response. The value can either be given as a binary coded field or as plain text message. The absence of this parameter indicates that no reason is given.

Bits 87654321 Reason

- 00000000 No specific reason stated (used for session or document reasons other than those listed);
- 00000001 Temporarily unable to enter into, or to continue, a session (e.g. due to memory full or out of recording paper);
- 00000010 Explicit text message only for use with RSSN (see Note 1);
- 00000011 Sequence error (Note 2);
- 00000101 Local terminal error (Note 2);
- 00000110 Unrecoverable procedural error (Note 2).

Note 1 – For the basic Teletex service, the text follows immediately after the first byte of the value. Maximum of 69 characters (control characters included). Only characters convertible one-to-one to the telex alphabet (ITA2) shall be allowed. Teletex code shall be used.

Note 2 – These parameter values are valid only in document commands and responses.

5.7.2.11 Inactivity timer

a) Bits 8 and 7 indicate the unit of inactivity timer value and bits 6 to 1 indicate the binary value in the range of 1 to 63.

Bits 87 Unit of timer

- 00 Second(s);
- 01 Minute(s);
- 10 Hour(s);
- 11 Reserved for extension.
- b) All bits of the first octet set to zero indicates the inactivity timer value is of infinity, i.e. the timer is disabled.

5.7.2.12 Session service functions

The parameter value is indicated by a sequence of two octets.

a) In octet 1:

Bits 8-4 (Note 1)	Reserved (set to 0).
Bit 3	Set to 1 to indicate the typed data capability (for further study).
Bit 2 (Note 2)	Set to 1 to indicate the ability to send RDPBN.
Bit 1 (Note 2)	Set to 1 to indicate the ability to send/receive CDCL/RDCLP.

b) In octet 2:

Bits 8, 6, 5 and 3 (Note 1)	Reserved (set to 0).
Bit 7 (Note 2)	Set to 1 to indicate the capability of document transfer.
Bit 4 (Note 2)	Set to 1 to indicate the capability of page synchronization
	[CDPB/RDPBP(N)].
Bits 2-1 (Note 3)	Set to 0 1 to indicate "half duplex"

Set to 1 0 to indicate "duplex"

Note 1 – All bits reserved should be ignored when comparing capabilities indicated in CSS and RSSP.

Note 2 – The indicated bits should be set (to 1 for document transfer and to 0 for no document transfer) as a unit.

Note 3 – Half-duplex and duplex are for further study.

The absence of this parameter should be interpreted as the following default values:

Bits 87654321

Octet 1: 00000011 Octet 2: 01001001

5.7.2.13 Non-standardized capabilities

The first octet represents the registered CCITT country code as specified in Recommendation T.35 to be used to identify non-standard capabilities. Additional octets, may be specified by each country's Administration.

5.7.2.14 Session user data

Some parameters associated with this PGI are defined in the T.400 series of Recommendations. The maximum length of this user data field following the PGI and its LI is restricted to 512 octets.

5.7.2.15 Private use

A set of PGI and PI values is designated as being for private use. Other than the PGIs designated for extensions and the permitted use of private parameters only with certain command and responses, the use of these parameters is not defined.

5.7.3 Document related parameters

Note – The following paragraphs include parameters commonly used by basic Teletex and Group 4 facsimile services.

5.7.3.1 Service interworking identifier

Bit 1 of the first octet set to 1 shall indicate that the associated document is suitable for forwarding via the telex service.

All other bit values are reserved for future standardization.

5.7.3.2 Document reference number

A sequence of decimal digits as defined in this Recommendation and coded in Recommendation T.61.

5.7.3.3 Checkpoint reference number

A sequence of decimal digits as defined in this Recommendation and coded in Recommendation T.61.

5.7.3.4 Acceptance of CDCL parameters

Bit 1 of the first octet set to 1 indicates acceptance of all non-basic terminal capabilities which are defined in this Recommendation and requested by a CDCL command.

All other bit values are reserved for future standardization.

Note – Bit 1 of the first octet set to 1 does not indicate accepance of non-basic terminal capabilities conveyed in the session under data of CDCL.

5.7.3.5 Storage capacity negotiation

A fixed length sequence of two octets:

- a) Bit 1 of the first octet set to 1 indicates that a terminal has reserved the requested amount of storage.
- b) Bit 2 of the first octet set to 1 indicates that the binary field in the following octet contains a number indicating storage capacity required/reserved in kilo-octets.
- c) Bit 5 of the first octet set to 1 indicates that the binary field in the following octet contains a number, which, when multiplied by 16, indicates storage capacity required/reserved in kilo-octets.
- d) Bit 6 of the first octet set to 1 indicates that the binary field in the following octet contains a number, which, when multiplied by 256, indicates storage capacity required/reserved in kilo-octets.
- e) Bit 3 of the first octet set to 1 indicates that a terminal cannot estimate its memory capacity.
- f) Bit 4 of the first octet set to 1 indicates that a terminal cannot now reserve the requested amount of memory.
- g) In the first octet, only one of bits 2, 5 and 6 may be set to 1. For negotiation of storage capacity less than or equal to 255 kilo-octets, bit 2 shall be used.

Note – Use of bit 5 or 6 for negotiation of a storage capacity greater than 65 kilo-octets but less than or equal to 255 kilo-octets is not to be interpreted as a procedural error by the receiver.

h) Bits 7 and 8 of the first octet are reserved for future standardization.

Octet 2 indicates the memory size available and/or reserved (the meaning is defined in the first octet). It shall be set to 11111111 if bit 3 and/or 4 in the first octet is set to 1.

In cases a), e) and f), the second octet may be ignored by the recipient of RDCLP.

5.7.3.6 Receiving ability jeopardized

The first octet shall be encoded as follows:

Bits	87654321	Meaning
	00000000	Further traffic can be accepted.
	00000001	Ability to receive further traffic is jeopardized.

All other binary values are reserved for future standardization.

5.7.3.7 Document type identifier

Absence of this parameter shall indicate a normal document. This parameter, if used, is a binary encoded field of fixed length of one octet identifying the document type as follows:

Bits	87654321	Type of document
	00000001 00000010	Operator document. Control document.
	00000011	Monitor document.

All other encodings are reserved for future standardization.

5.7.3.8 *Reflect parameter value*

This is an arbitrary length field that contains the bit pattern of the command or response up to and including the detected error.

5.7.4 Document related parameter for teletex

Note – The following parameters may also be used by services other than teletex.

5.7.4.1 *Control character sets* (refer to Recommendations T.60 and T.61)

A variable length field indicating the receiving capability for non-basic standardized control character sets. Each such control character set shall be indicated by the sequence of characters used to designate that set, as defined in Recommendation T.61. Where more than one such character set are to be indicated, the ESC character fulfills the purpose of a separator between the character set indicators.

5.7.4.2 Graphic character sets (refer to Recommendations T.60 and T.61)

5.7.4.2.1 A variable length field indicating the receiving capabilities for non-basic standardized graphic character sets. Each such graphic character sets or DRCS (Dynamically redefinable character set) for Japanese Kanji and Chinese ideogram characters shall be indicated by the sequence of characters used to designate that set, as defined in Recommendation T.61. Where more than one such character set are to be indicated, the ESC character fulfills the purpose of a separator between the character set indicators.

5.7.4.2.2 The following descriptions apply to the use of a DRCS set for Japanese Kanji and Chinese ideogram characters:

- a) if the DRCS set is indicated as a parameter value associated with a CDS or CDC command, this should be followed by combinations of a character code (CC) to be registered to the DRCS set and its character dot pattern (DP);
- b) the field length of a character code is defined by the DRCS set and that of a character dot pattern is indicated as parameter values of a character box height and a character box width.

Note – The PV field of this parameter in either CDS or CDC will be as follows:

DRCS $CC_1 DP_1 CC_2 DP_2 \dots CC_i DP_i$

5.7.4.3 *Teletex page formats* (refer to Recommendations T.60 and T.61)

The value of the first octet of the parameter value will indicate the capability of a page format, as defined in Table 11/T.62. If the terminal is capable of more than one format, these will be indicated in the first and subsequent octets, one octet per value (see Note 1 of Table 11/T.62). No separator between the values will be given. The length indicator of the parameter will indicate if more than one value is given. All parameter values shall be inserted in increasing order of their binary values.

TABLE 11/T.62

Bits	8	7	6	5	4	3	2	1		Format
	0	0	0	0	0	0	0	1	(option)	ISO A4, horizontal and vertical
	0	0	0	0	0	0	1	0	(option)	North American, horizontal and vertical
	1	0	0	0	0	1	0	0	(option)	ISO A4 extended (ISO standard 3535), vertical
	0	1	0	0	0	1	0	0	(option)	ISO A4 extended (ISO standard 3535), horizontal
	1	0	0	0	1	0	0	0	(option)	North American legal, vertical
	0	1	0	0	1	0	0	0	(option)	North American legal, horizontal
	0	0	0	0	0	0	1	1	(option)	ISO A4, horizontal and vertical (for use by Japanese Kanji and Chinese ideogram terminals)
	0	0	0	1	0	0	0	0	(option)	ISO B5, horizontal and vertical (for use by Japanese Kanji and Chinese ideogram terminals)
	0	0	1	0	0	0	0	0	(option)	ISO B4, horizontal and vertical (for use by Japanese Kanji and Chinese ideogram terminals)

Note 1 – The whole octet has to be considered when decoded, since the meaning is coded as a value, not as a single bit position within the octet. All other values are reserved, i.e. it is not allowed to "combine" the indication of several formats into the same octet by setting more than one bit to "one".

Note 2 – The following rule is used for the coding of bits 7 and 8:

Bits	87	Meaning
	0 0	Vertical and horizontal
	01	Horizontal only
	10	Vertical only.

5.7.4.4 *Miscellaneous terminal capabilities* (refer to Recommendation T.61)

A variable length field indicating the receiving capabilities for non-basic standardized values of character spacing, line spacing and graphic renditions. Each parameter value of such a function shall be indicated by the control sequence (CSI $P_i I_i F$) as defined in Recommendation T.61. This applies to the functions Select Horizontal Spacing (SHS) for a character pitch, Select Vertical Spacing (SVS) for a line pitch and Select Graphic Rendition (SGR) for a graphic rendition. This also applies to the functions Graphic Size Modification (GSM) and Select Presentation Direction (SPD) for Japanese Kanji and Chinese ideogram capabilities, and to Select Character Orientation (SCO) for Chinese ideogram capabilities. When more than one such character sequence is to be indicated, a single space shall be inserted between them. Only one parameter value is allowed within a CSI sequence.

5.7.4.5 Character box height

A variable length field indicating the receiving capabilities for the number of dots of the character box height. The number of dots shall be indicated by the numeric character as defined in T.61.

Further study is required for indicating more than one value.

5.7.4.6 Character box width

A variable length field indicating the receiving capabilities for the number of dots of the character box width. The number of dots shall be indicated by the numeric character as defined in T.61.

Further study is required for indicating more than one value.

ANNEX A

(to Recommendation T.62)

Definitions

Note – Some of the terms used in this Recommendation have been defined in ways that may differ from the meanings of similar terms in other Recommendations.

A.1 General

A.1.1 Teletex terminal

F: terminal télétex

S: terminal teletex

A device that is capable of transmitting and receiving Teletex documents in accordance with the basic requirements of Recommendation T.60.

A.1.2 call

F: communication

S: comunicación

The temporary connection (or apparent connection as perceived by the caller) of one terminal to another for the purpose of exchanging information.

A.1.3 calling terminal

F: équipement terminal demandeur

S: terminal llamante (que llama)

The terminal that initiates the procedures to establish a call.

A.1.4 called terminal

F: équipement terminal demandé

S: terminal llamado

The terminal to which a call is made.

A.1.5 service interworking

F: interfonctionnement de service

S: interfuncionamiento de servicios

The facility of sending and receiving information between a Teletex terminal and a terminal of another service,

e.g. telex.

A.1.6 command

F: commande

S: instrucción; orden

A command is control information sent to another terminal to initiate execution of a specific function. Some commands require a response.

A.1.7 response

F: réponse

S: respuesta

A response is control information sent by the recipient of the command to advise the sender of the command of the action taken. Exceptionally, the reaction to a response may be another response.

A.1.8 source/sink relationship

F: relation source/collecteur

S: relación fuente/aceptor (o fuente/sumidero)

User information is transferred from a source to a sink.

A.1.9 group 4 facsimile apparatus

F: télécopieur du groupe 4

S: aparato facsímil del grupo 4

A device that is capable of transmitting and receiving facsimile documents in accordance with the basic requirements of Recommendation T.5.

A.2 Terms specific to session procedures

A.2.1 session

F: session

S: sesión

A session is the interval during which a logical, mutually agreed correspondence between two application/presentation processes exists for the transfer of application and presentation related information.

A.2.2 *Modes of session*

There are three different modes:

A.2.2.1 one way communication (OWC)

F : *échange unidirectionnel (UND)*

S: communicación unidireccional (UND)

User information is transferred in one direction only during the session, i.e. only one of the terminals will have the right to be the source.

A.2.2.2 two way alternate (TWA)

F : échange bidirectionnel à l'alternat (BDA)

S : modo bidireccional alternado (BDA)

User information is transferred in both directions, but only in one direction at a time, i.e. the source/sink relation will be changed one or more times during the session.

A.2.2.3 two way simultaneous (TWS)

F : échange bidirectionnel simultanné (BDS)

S : modo bidireccional simultáneo (BDS)

User information is transferred in both directions simultaneously, i.e. both terminals are simultaneously a source as well as a sink.

Note - TWS mode is for further study.

A.2.3 basic session reference

F: référence de base de la session

S: referencia básica de la sesión

The basic session reference is used to identify a session. It consists of:

- a) terminal identifier of the called terminal;
- b) terminal identifier of the calling terminal;
- c) date and time.

A.2.4 expanded session reference

F: référence élargie de la session

S: referencia extendida de la sesión

The expanded session reference is used to identify a session uniquely. It consists of the mandatory basic session reference plus an optional additional session reference number.

A.3 Terms specific to document procedures

A.3.1 document

F: document

S: documento

A document is a sequence of one or more pages intended by the originator to be delivered to the address(es) as a single entity in the original page sequence.

A.3.2 page

F: page

S: página

The basic element of office correspondence in the Telematic services. One A4 (or A4L, North American Standard or North American Legal) page or the information that may be presented on it.

A.3.3 checkpoint

F: point de repère

S: punto de comprobación; punto de validación

A checkpoint is a numbered mark inserted by the sender in the text stream to provide a reference point for error recovery.

A.3.4 acknowledgement window

F: fenêtre d'accusé de réception

S: ventana de acuse de recibo

The maximum number or checkpoints that a sender can transmit without receiving an acknowledgement from the receiver.

ANNEX B

(to Recommendation T.62)

Telematic modes of operation

B.1 Introduction

B.1.1 The purpose of this annex is to provide for explanation on the Telematic modes of operation that are realized by the use of this Recommendation.

B.2 Telematic modes of operation

There are three modes of operation defined for the Telematic services.

B.2.1 document transfer mode

This mode allows only for transfer of documents without interactive capability. Procedures applying to this mode are defined in the main body of this Recommendation.

B.2.2 interactive mode

This mode allows only for interactive dialogue. No document transfer can take place. Procedures applying to this mode are for further study.

B.2.3 document transfer and interactive mode

This mode allows for interleaving of document transfer with interactive dialogue. Procedures applying to this mode are for further study.

B.3 Relationship between Telematic modes of operation and the OSI session services

B.3.1 Required session service subsets

B.3.1.1 The three modes of operation defined in § B.2 above use different subsets of the OSI session services as illustrated in Figure B-1/T.62.

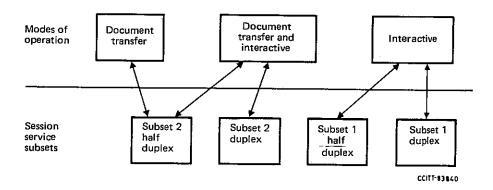


FIGURE B-1/T.62

Modes of operation and supporting session service subsets

B.3.1.2 Subset 1

This subset is composed of:

- a) kernel functional unit;
- b) half-duplex functional unit;
- c) duplex functional unit;
- d) typed data functional unit.

For one connection, only either duplex or half-duplex functional units can be selected.

B.3.1.3 Subset 2

This subset is composed of:

- a) kernel functional unit;
- b) half-duplex functional unit;
- c) duplex functional unit;
- d) typed data functional unit;
- e) capability data exchange functional unit;
- f) minor synchronize functional unit;
- g) exception functional unit;
- h) activity management functional unit.

Typed data functional unit is an option for the "interactive" and "document transfer and interactive" modes.

Only half-duplex functional unit can be used for the document transfer mode. Either half-duplex or duplex functional unit can be used for "interactive" and "document transfer and interactive" modes.

B.3.2 *Restrictions on the use of the session services*

B.3.2.1 Every mode of operation specifies how it uses the session services. This encompasses restrictions put on the generality offered by the session services. A number of them are reflected in the state transition diagrams given in Annex G. For this, these state transition diagrams take into account only those sequences of events, which are valid in the respective mode of operation, at the session layer boundary.

B.3.3 Selection of a specific mode

B.3.3.1 The selection of a particular mode is achieved through the negotiation of the session services available over the established session.

B.3.3.2 Table B-1/T.62 summarizes different cases that may occur and the results of the negotiation.

Note – The availability of the typed data service has no impact on the selection of a mode. If the availability of this has been agreed to, it can be used in any mode.

B.3.3.2.1 The result of the negotiation of the session services can be:

- a) the functionalities of the subset 2 have been agreed to. The duplex mode is in use;
- b) the functionalities of the subset 2 have been agreed to. The half duplex mode is in use;
- c) only the functionalities of the subset 1 have been retained by both systems.

B.3.3.2.2 The combination of the supported capabilities can be:

- d) document transfer is the only capability commonly supported by both systems;
- e) both systems have indicated that they have the interactive capability.

TABLE B-1/T.62

Selection of a mode of operation

	a)	b)	c)
d)	_	Mode I	_
e)	Mode III	Mode III	Mode II

Note 1 – Modes I, II and III stand for "document transfer", "interactive" and "document transfer and interactive" modes, respectively.

Note 2 – Cases a) to c) are explained in § B.3.3.2.1, cases d) and e) in § B.3.3.2.2.

ANNEX C

(to Recommendation T.62)

Definition of valid/invalid session protocol data units

C.1 Introduction

This annex is intended to provide the comprehensive definition and rules on valid/invalid session protocol data units (SPDUs).

C.2 Invalid protocol data units (PDUs) (definition and rules)

If the command/response PDUs do not meet the following conditions, such PDUs are invalid:

a) the sum of the length indicators (LIs) of parameter group identifiers (PGIs) and freestanding parameter identifiers (PIs) is equal to the overall LI;

- b) the sum of the LIs of PIs embedded within recognized PGIs is equal to the PGIs LI;
- c) for all mandatory parameters, the PGIs or PIs are present and the LIs are not equal to zero.

Note 1 – In case of CSA, RSAP and RSSN PDUs, the same checking rules may be applied. However, it is recognized that no externally visible procedure is provided to react to the detection of such invalid PDUs.

Note 2 – Invalid RDPBN or RDGR can either be rejected or processed normally to start error recovery.

Note 3 – When receiving an invalid CSS it is recommended that the connection be refused by serving an RSSN with the appropriate parameters and not to release the transport connection.

Note 4 - An equipment is not required to make any checking at all on parameters it does not support. In such cases it may also omit the checking of the overall LI. In particular it should be noted that not recognized parameters, e.g. new parameters, may appear either between supported parameters or after the complete set of supported parameters.

C.3 Valid PDUs (rules for mandatory acceptance of PDUs)

An SPDU shall not be rejected if it does not meet the rejection conditions described n § C.2. They must not be rejected for any of the following conditions:

- a) the presence of a non-mandatory PI or PGI of having an LI=0;
- b) the presence of any 3-octet LI, the coding of which follows the rules described in § 5.3.3 of the main body of Recommendation T.62;
- c) the presence of any correctly formed parameter value (PV) for which future values can be assigned;
- d) the presence of one or more undefined PIs or PGIs in CSS or CDCL and their corresponding responses;
- e) the presence of a T.61 coded hyphen ("-") instead of a colon (":") as the separator between the hours and minutes of the date and time PV in CSS;
- f) a greater or smaller length of the CRN (checkpoint reference number) in RDPBP than the CRN in the corresponding CDPB (with more or less preceding zeros);
- g) more PVs in RSSP or RSSN than in CSS.

Note – The scope of these rules are restricted to the determination of protocol element validity (formal validity) and do not impact on rejection of protocol elements due to the functions they invoke.

ANNEX D

(to Recommendation T.62)

General description and rules of operation for state diagrams

D.1 Each state diagram is in only one state at any time.

D.2 Each state is represented as an ellipse, which contains a number for reference and a descriptive name.

D.3 Permissible transitions from one state to another are shown as connecting lines with an arrow indicating the permitted direction of the state transition and labelled with the event or events that cause that transition.

D.4 Where a transition may originate from any of several states, it may be indicated by a broad arrow terminating on the description state and labelled with the permissible states of origination and with the event or events that cause that entry into the destination state.

D.5 An event is either the sending (S-) or reception (R-) of a command or a response or an indicated local operation.

D.6 Each state diagram has a state named "idle" and numbered zero. This is the initial or reset state when that state diagram is inactive.

D.7 Upon sending any command that causes entry into a state named "demand response", the sending of any additional commands is not permitted until a response is received. A demand response timer is started, and, if a response is not received prior to expiration of that time-out, session termination, either directly if Command Session Abort (CSA) was sent, or by sending CSA, is mandatory.

D.8 The effect of each event that causes a state transition must be completed prior to consideration of a subsequent event.

- D.9 During a session, each session partner has a responsibility for monitoring for proper operation as follows:
 - a) maintenance of the currently agreed source/sink relationship;
 - b) proper use of command/response procedural sequences as described in the state diagrams and the rules for their operation;
 - c) monitoring for a period of inactivity (e.g. indicating a failure or other inability to continue productive use of the session).

Upon detection of a failure to maintain proper operation as described above, use of error recovery procedures defined for each state diagram is mandatory, or where such error recovery procedures are not specifically defined, session termination (abnormal end) is mandatory. This is necessary in order to avoid unproductive use of telematic facilities, incurring unnecessary charges where the service is not being used effectively, and causing degradation of the service.

D.10 The purpose of the state diagrams is to assist in defining proper use of the elements of procedure, and not to define any particular implementation.

ANNEX E

(to Recommendation T.62)

Types of document

E.1 General

E.1.1 An indication of the type of document that is transferred shall be given at the start of each document; if not, the normal type of document is used.

E.1.2 A document type indication will indicate to the operating system of the receiving terminal that a special action is required (the action is defined for each type of document).

E.1.3 No additional procedure elements or changes in state transition diagrams are required.

E.2 Normal document

E.2.1 This is the normal type of document to be used to transfer text in the Telematic services. Upon reception the document may be immediately printed (in the case of G4 facsimile Class 1) or be immediately stored (all other terminals).

E.2.2 From the procedures point of view, every Teletex terminal must be able to handle this type of document.

Note – Where appropriate the rules for the usage of optional functions have to be followed.

E.3 *Operator document (optional)*

E.3.1 The operator document represents a type of priority message. It can be used in the conversational mode of operation.

It is intended to be presented immediately to the operator (although the decision to present it is left to the receiving operator). It may therefore be immediately indicated to the operator that a new operator document has been received. The operator document shall conform to the same presentation control functions and be treated in the procedure as a normal document. The length of an operator document is arbitrary but, preferably (due to the application), it shall not exceed one page. Note that a terminal that does not have a special dialogue mode can handle an operator document as a normal document.

E.4 *Control document*

E.4.1 The control document can be used in communication with intermediate store-and-forward equipment; e.g. interworking with the telex service, in standardized options and national applications.

E.4.2 The addressing information (and other control information required) can be included as text within such a document. The control document shall, except for the document type indication, follow the same rules (in the procedure) as a normal document. The use of the control document is outside the scope of this Recommendation.

E.4.3 Teletex terminals shall be able to support the control documents defined, in Recommendation T.90, for interworking with the telex service.

E.5 *Monitor document (optional)*

E.5.1 The monitor document will not be made available to the user. It is intended to be available for purposes that can be defined by each Administration, e.g. for maintenance purposes.

E.5.2 The monitor document will be handled by the operating system of the terminal and not displayed to the operator. The monitor document shall, except for the document type indication, conform to the same rules (in the procedure) as a normal document.

ANNEX F

(to Recommendation T.62)

Interactive session protocol and typed data transfer for the Telematic services

Note – Further study is required for such capabilities.

ANNEX G

(to Recommendation T.62)

Detailed state transition diagrams for session/document procedures

G.1 General

This annex provides detailed state transition diagrams for session/document procedures for the basic services. These diagrams are modelled using the terminology of the open systems interconnection (OSI) model and are aligned with the latest understanding of the CCITT and ISO activities on the OSI session layer. These diagrams are also aligned with the state transition diagrams in this Recommendation but assume a window- independent mechanism.

G.2 Description on notations

- G.2.1 These diagrams use a presentation method which provides the following levels of description.
 - a) Protocol level

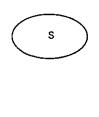
This level addresses only the peer to peer protocol activities between two session entities. It identifies the protocol states, events [receipt of session protocol data units (SPDUs)] and actions (sending of SPDUs).

b) Detailed level

This level addresses the inter-layer and local activities (e.g. management of timers, counters, etc.). It identifies the events, actions and states within each of the protocol level states. The inter-layer activities are described using the session service primitives defined in \S G.3.

G.2.2 Presentation symbols

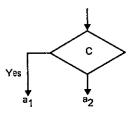
G.2.2.1 State S



G.2.2.2 Action A



G.2.2.3 If condition C is true, then action a_1 , otherwise, action a_2 .



G.2.2.4 Event E



G.2.2.5 Send SPDU action



G.2.2.6 Receive SPDU event



G.2.2.7 Timers

- a) *Timer T1* Inactivity timer, value as determined by inactivity timer value negotiation.
- b) *Timer T2* Demand response timer, value 60s [see the Note in § 4.1.1.d)].
- c) Timer T3 CSA timer of, for example, 4 seconds.

G.2.3 Notes

- G.2.3.1 With regard to the interactions between session and transport layers, the following is assumed:
 - a) Each SPDU is transferred by "T-DATA REQ". The transport service data unit (TSDU) will contain the SPDU;
 - b) Each SPDU is received by "T-DATA IND". The TSDU will contain the SPDU.
- G.2.3.2 The management of the various timers requires further study.
- G.2.3.3 Response (or confirm) service primitive shall indicate a positive response (or confirm) unless otherwise stated.
- G.2.4 Abbreviations
- G.2.4.1 The abbreviations contained in Table G-1/T.62 apply to the description of service primitives.

TABLE G-1/T.62

Abbreviation of service primitives

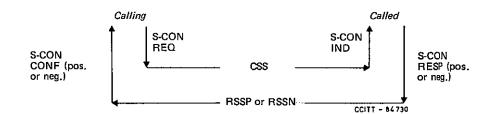
Abbreviation	Meaning	Abbreviation	Meaning
CON	connection	REL	release
CONF	confirmation	REQ	request
IND	indication	RESP	response
POS	positive	NEG	negative
S	session	U	user
Р	provider	BEG	begin
CONT	continue	ACT	activity
SYNC	sychronization	MIN	minor
EXPT	exception	CAPAB	capability
ERR	error	FAIL	failure
CTRL	control	PLS	please
INT	interrupt	ABT	abort
DCAD	discard	DISC	disconnection

G.3 Service primitives

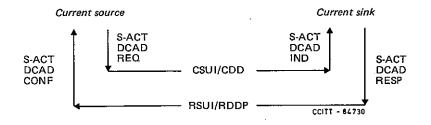
The following illustrates the service primitives and associated SPDUs for the basic session/document control procedures.

G.3.1 Service primitives for the services provided to the session/document user

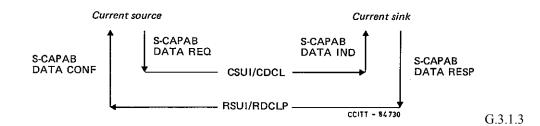
G.3.1.1 Session connection



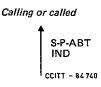
G.3.1.2 Session release



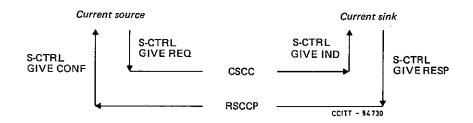
G.3.1.3 Session user abort

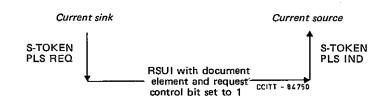


G.3.1.4 Session provider abort

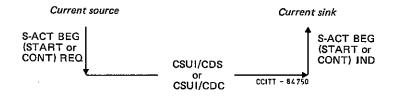


G.3.1.5 Session control give

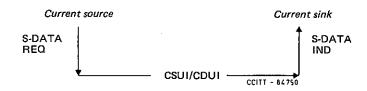




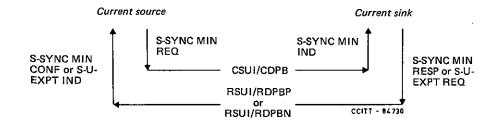
G.3.1.7 Session activity begin (start or continue)



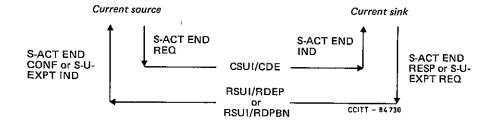
G.3.1.8 Session data transfer

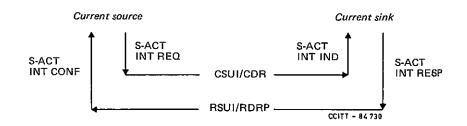


G.3.1.9 Session synchronization minor

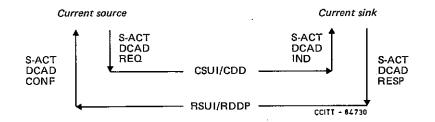


G.3.1.10 Session activity end

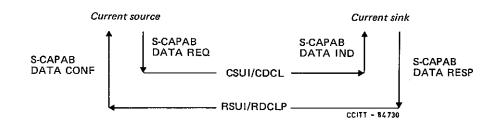




G.3.1.12 Session activity discard



G.3.1.13 Session capability data



G.3.1.14 Session user exception reporting

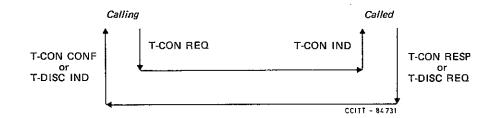


G.3.1.15 Session provider exception reporting



Note – This primitive carries one of the following parameters:

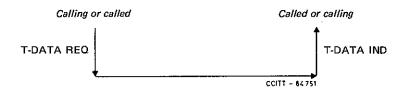
- a) ERR to invite the application to take appropriate action (CDR, CDD, CSA or RDPBN);
- b) FAIL to invite the application to abort (CSA).
- G.3.2 Service primitives for the services expected from the transport layer
- G.3.2.1 Transport connection



G.3.2.2 Transport disconnection (implicit)



G.3.2.3 Transport data transfer



G.3.2.4 Transport exception reporting (optional and not part of OSI transport class 0)

Calling o	r called
4	T-EXPT IND
	CCITT - 84 740

G.4 Detailed state transition diagrams for the basic services

G.4.1 Figures G-1/T.62 and G-2/T.62 illustrate the detailed state transition diagrams for the calling and the called sides, respectively.

G.4.2 Figures G-3/T.62 and G-4/T.62 illustrate the detailed state transition diagrams for the sending and the receiving protocols, respectively.

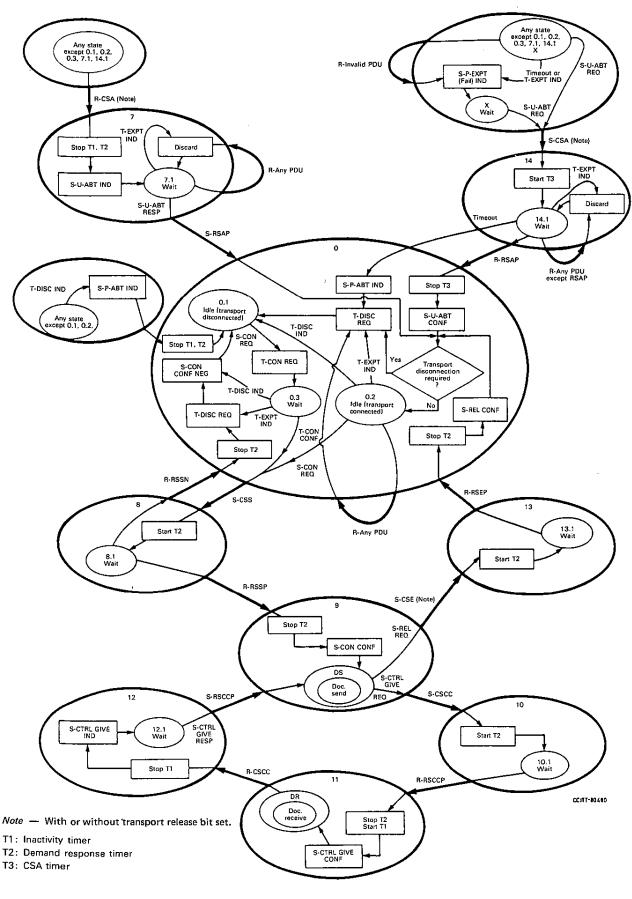


FIGURE G-1/T.62

Teletex session state transition diagram (calling side)

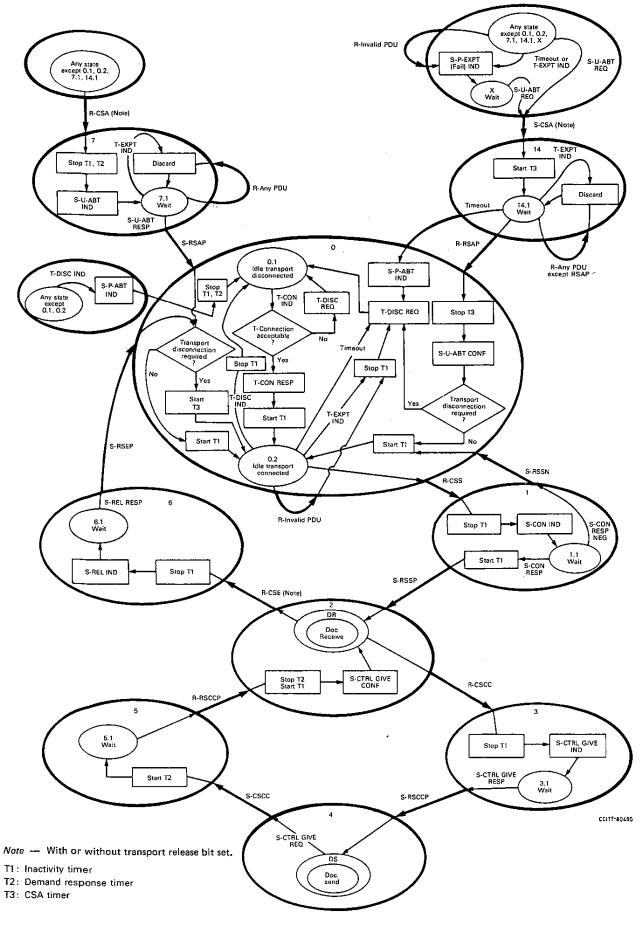


FIGURE G-2/T.62

Teletex session state transition diagram (called side)

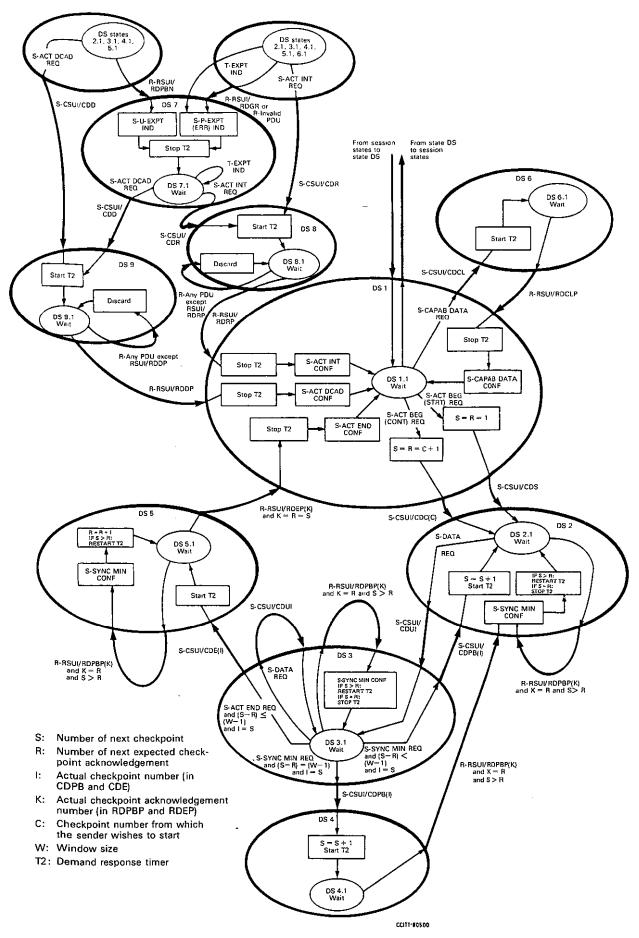


FIGURE G-3/T.62 Teletex document state transition diagram (sending protocol)

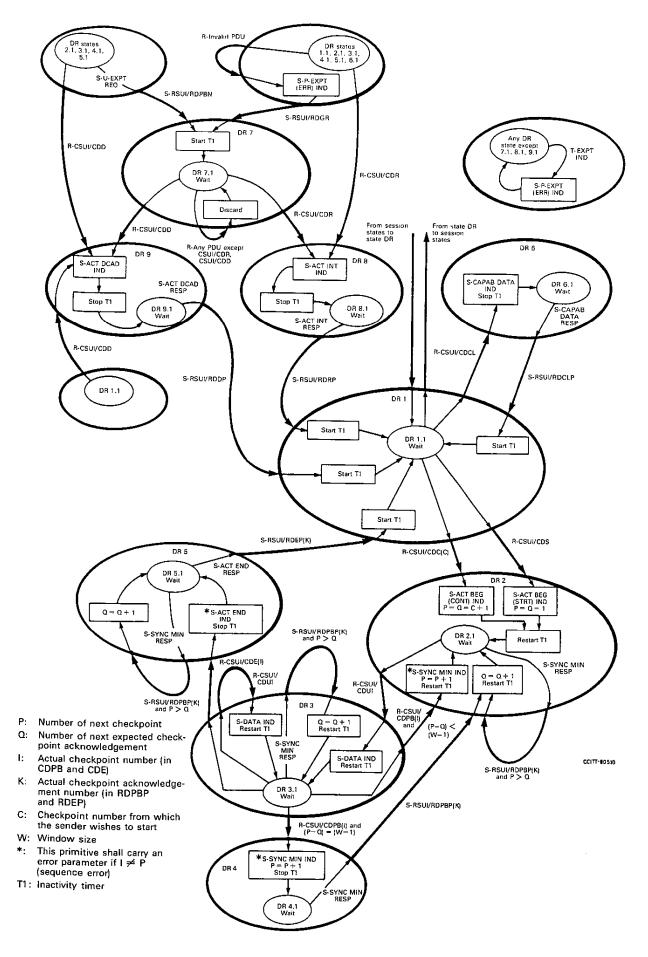


FIGURE G-4/T.62 Teletex document state transition diagram (receiving protocol)

ANNEX H

(to Recommendation T.62)

State transition tables for session/document procedures

H.1 General

This annex provides state transition tables for session/document procedures for the basic services.

- H.2 Notation details
- H.2.1 Timers
- H.2.1.1 The following timers are used in the state tables:
 - a) Timer T1 Inactivity timer, value as determined by inactivity timer value negotiation
 - b) Timer T2 Demand response timer, value 60 seconds
 - c) Timer T3 CSA timer of, for example, 4 seconds.

H.2.2 Notes

- H.2.2.1 Several actions described in the state tables are marked by a number which relates to the following notes:
 - 1) only if T-DISC is not required;
 - 2) _____ [see § H.2.3.2 h) below];
 - 3) alternative error recovery mechanism;
 - 4) this may also be considered as an error;
 - 5) S-SYNC MIN IND with parameter "procedural error";
 - 6) S-SYNC MIN IND with parameter "sequence error";
 - 7) only if the reuse of the transport connection is intended.
- H.2.3 Symbols
- H.2.3.1 For the description of several different conditions Boolean equations and symbols are used.
- H.2.3.2 The symbols have the following meanings:
 - a) < less than;
 - b) > greater than;
 - c) = equal;
 - d) \neq not equal;
 - e) V or;
 - f) Λ and;
 - g) not;
 - event irrelevant in this specific state since error free operation of the considered terminal is assumed.

H.2.4 Counters

h)

H.2.4.1 For the description of the dynamic behaviour of parameters such as checkpoint numbers, several counters and parameter abbreviations are introduced.

- H.2.4.2 Counters of the source are as follows:
 - a) S this indicates the next allowed checkpoint reference number for a CDPB or CDE;
 - b) R this indicates the next expected checkpoint reference number in an RDPBP or RDEP.

- H.2.4.3 Counters of the sink are as follows:
 - a) P this indicates the next expected checkpoint reference number in a CDPB or CDE to be acknowledged by the sink;
 - b) Q this indicates the next allowed checkpoint reference number to be acknowledged in an RDPBP or RDEP.
- H.2.4.4 Parameter abbreviations are as follows:
 - a) C a checkpoint reference number from which the source will resume transmission (in case of continuation with CDC);
 - b) I an actual checkpoint reference number in a CDPB or CDE;
 - c) K an actual checkpoint reference number to be acknowledged in an RDPBP or RDEP;
 - d) W acknowledgement window size.
- H.2.5 Abbreviations
- H.2.5.1 The abbreviations contained in Table G-1/T.62 apply to the description of service primitives.
- H.3 State tables
- H.3.1 State tables for a calling terminal is shown in Table H-1/T.62.
- H.3.2 State tables for a called terminal is shown in Table H-2/T.62.

Calling terminal							***										Wate		F
//		State -						PI	Idle							M			1
Event	/			0.1	1	~		0.2	2			0.3				L	7.1		
Local Prot event ev	Protocal S event pr	Service primitive	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocof action	Service primitive	Final state	
	<u>%</u>	s-con req		 \ \	T-CON REQ	0.3	START T2	scss		8.1		•		Î					
	<u> </u>	SREL REQ																	•
	35	S-CTRL GIVE REQ								 									<u> </u>
	36	S-CTRL GIVE RESP				Î				Î			·						·
	E REE	SSYNC MIN REQ (I)				Î				Î				 					
	S-S WW	SSYNC MIN RESP (X)				$\left \begin{array}{c} \end{array} \right $		~		Î								Î	
	<u></u>	& U-EXPT REQ				 _													
	S-A	S-ACT END REQ (1)						 											
	S.A RE	S-ACT END RESP (K)			···	Î				 				 				Î	
	SC RE	S-U-ABT REQ				 _ [
	2 <u>3</u> 2	S-U-ABT RESP				 _								Î		S-RSAP	T-DISCON REQ	0.1	

TABLE H-1/T.62 State transition tables for calling terminal

Wait	0.3 7.1	Timer Protocol Service Final Timer action primitive state										T2 Statk S-CSS 8.1 (
Idle	0.2	Timer Protocol Service Final action primitive state										
	0.1	Timer Protocol Service Final Ti action primitive state								-) ()		
	7	Local Protocol Service event event primitive	 S.ACT BEG CONT) REQ (C)	S-DATA REQ	SACT DCAD REQ	SACT SACT DCAD RESP	SACT INT REQ	SACT SACT INT RESP	SCAPAB BATA REQ	SCAPAB DATA RESP	T-CON	

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		· 	Final state	1.1	7.1	7.1	1.7	7.1	1.7	1.7	1.7	7.1	1.1	1.7
			Service		·			·						
	Wait	7.1				·						 		
			Protocol action											
			Timer											
			Final state	0.1	Î		$\widehat{ }$			 	 		 Î	
		~	Service primitive	T-DISCON REQ S-CON CONF NEG										
		0.3	Protocol action											
			Timer											<u></u>
			Final state	0.1	0.1	0.1	1.0						0.1	
	9		Service	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON
	Idle	0.2	Protocol action								<u> </u>	<u> _+</u>		
		1	Timer				<u>-</u>				<u> </u>	 		<u>i</u>
			Final state			<u></u> -	<u>+</u>	 	<u></u>	 		 	 _	<u> </u>
			Service primitive						<u>-</u> _	-		<u>+</u>		<u> </u>
		0.1	Protocol action											
			Timer											<u>-</u>
	State		Service primitive	T-EXPT		<u>.</u> 			<u>-</u>					
inal		/	Protocol event	<u>-</u>	R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP	R- csul/cbs
Calling terminal	/	Event	Local					· · · · · · · · · · · · · · · · · · ·					~	<u>~~</u> 0

Calling terminal

<u> </u>				-				_					
		Final state	7.1	7.1	1.1	7.1	7.1	7.1	1.1	7.1	7.1	7.1	7.1
it		Service primitive											
Wait	1.7	Protocol action									<u>-</u>	<u>-</u>	
		Timer									<u>-</u>	<u></u>	
		Final state	Î	<u>-</u>	(Î	Î	 		<u> </u>	<u>+</u>		<u></u>
		Service primitive						<u>-</u>				<u>-</u>	
	0.3	Protocol action	•	~							<u>-</u>		
		Timer											
		Final state	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
e	~	Service primitive	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON	T-DISCON REQ	T-DISCON
. Idle	0.2	Protocol action	• <u> </u>										
		Timer										-	
		Final state	Î				Î	 		Î		Î	
		Service primitive							~ -				
	0.1	Protocol action				,							
		Timer											
State		Service primitive											<u> </u>
;	/	Protocol event	R- CSUI/CDC (C)	R- CSUI/CDCL	R- RSUI/ RDCLP	R- CSUI/CDE (I)	R- RSUI/RDEP (K)	R. CSUI/CDD	R- RSUI/ RDDP	R- CSUI/CDR	R- RSUI/ RDRP	R- CSUI/ CDUI	R- RSUI/ RDGR
/	Event	Local event											

	Ī				1		~	~	
		Final state	7.1	1.7	7.1	Г' <u>г</u>			
Wait	7.1	Service							-
M	L	Protocol action							
		Timer	·						
		Final state	Î			Î	Î		(
	0.3	Service primitive							
	0	Protocol action			I				
		Timer	J)		<u> </u>		
		Final state	0.1	0.1	0.1	0.1	Î		Î
Idle	0.2	Service primitive	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ			
Y	0	Protocol action							
		Timer							
		Final state		Î			Î		
		Service primitive							-
	0.1	Protocol action						—— —- 	
		Timer							
	state	Service primitive		~ ~ 					
	/	Protocol event	R- CSUI/ CDPB	R- RSUI/ RDPBP (K)	R- RSUI/ RDPBN	ANY OTHER COMMAND OR RESP OR WRONG	·		
	Event	Local					EXPIRY OF T1	EXPIRY OF T2	EXPIRY OF T3

Calling terminal

		Final state					DS 2.1	DS 4.1			DS 5.1		14.1
	DS 3.1	Service primitive											
	DS	Protocol action	•			~	S-CSUI/ CDPB (I) S = S+1	SCSUI/ CDPB (I) S = S+1			S-CSUI/ CDE (I)		S-CSA
	_	Timer))		START T2	START T2			START T2		START T 3
		Final state				<u> </u>							14.1
9 Document send	DS 2.1	Service primitive											
9 Docur	DS	Protocol action											SCSA
		Timer											START T3
		Final state		13.1	10.1								14.1
	DS 1.1	Service primitive											
	DS	Protocol action		scse	s-cscc								S-CSA
		Timer		START T2	START T2								TART 1
		Final state				Î							14.1
Wait	8.1	Service											
H.	8	Protocol action											S-CSA
		Timer											START T 3
Ctata		Service primitive	S-CON REQ	S-REL REQ	SCTRL GIVE REQ	SCTRL GIVE RESP	SSYNC MIN MEQ (I) A (S-R) A (S-R) A = S	SSYNC MIN REQ ([) A [=S - 1]	S-SYNC MIN RESP (K)	S-U-EXPT REQ	SACT END REQ (I)	S-ACT END RESP (K)	S-U-ABT REQ
i	/	Protocol event											
/	Event	Local event											

		Ctota 1		M	Wait							9 Docur	9 Document send	3				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Event	alpic		8.	I			SQ	\$ 1.1			DS	:2.1			SQ	3.1	
$ \left(\begin{array}{c c c c c c c c c c c c c c c c c c c $	Local Protocol event event	Service primitive	Timer	Protocol action	Service primitive	Final state	Timer		Service primitive	Final state	Timer		Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
		S-U-ABT RESP					J))			(
$\left(\begin{array}{c c c c c c c c c c c c c c c c c c c $	 	SACT BEG START) REQ						S=R=1		DS 2.1				(
$ \left(\begin{array}{c c c c c c c c c c c c c c c c c c c $		SACT BEG (CONT) (CONT) REQ (C)						s=R=C+1		DS 2.1								
$\left(\begin{array}{c c c c c c c c c c c c c c c c c c c $		S-DATA REQ										s-csul/ cout		DS 3.1		s-csul/		DS 3.1
$\left(\begin{array}{c c c c c c c c c c c c c c c c c c c $		SACT SACT DCAD REQ									START T2	scsul/		DS 9.1	START T2	scsul/ cbD		DS 9.1
() ITART ScSUU ISARI ScSUU () ITART ScSUU ITART ScSUU (SACT SACT DCAD RESP																
(S-ACT INT REQ				 					START T2	s csul/		DS 8.1	START T2	s-csul/ cDR	 1 1 1 1 1 1 1 1 1 1 1 1	DS 8.1
		SACT INT RESP))			
		SCAPAB DATA REQ						s-csul/		DS 6.1								
		S-CAPAB DATA RESP																
		L-CON		·		Î				 				Î)			

				1 1								<u> </u>	
		Final state	0.1	DS 7.1 x	×	×	×	×	×	7.1	×	×	×
	DS 3.1	Service primitive	S-P-ABT IND	SPEXPT IND (ERR) 3) (ERR) 3) SPEXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SABT IND	SP-EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	SP-EXPT SP-EXPT SP-EXPT SP-EXPT (FAIL)
	DS	Protocol action							— — — — — — — — — — — — — — — — — — —		 		
		Timer	STOP T2	STOP T2	STOP T2	STOP 172	STOP 12	12 12	STOP T2	STOP 12	STOP 12	STOP T2	STOP T2
		Final state	0.1	DS 7.1	×	×	×	×	×	7.1	×	× .	' ×
ient send	2.1	Service primitive	S-P-ABT IND	SP-EXPT SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
9 Document send	DS 2.1	Protocol action											
		Timer	STOP T2	STOP T2	STOP T2	40LS	STOP 12	STOP T2	STOP T2	STOP T2	STOP 12	TI2	STOP 12
		Final state		×		×	×	×	×	1.1	×	×	×
	1.1	Service	S-P-ABT	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S.ABT	S-P-EXPT END (FAIL)	S-P-EXPT S-P	SP-EXPT SP-1
	DS 1.1	Protocol action											
		Timer										1	
		Final state		×	×		0.1	×	×		×	×	×
Wait	8.1	Service primitive	S-P-ABT IND	S.P.EXPT IND (FAIL.)	S-P-EXPT IND (FAIL)	S-CON CONF	T-DISCON REQ S-CON CONF NEG	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S.P. EXPT S.P. EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
W.	si.	Protocol action	•				• •						
		Timer	STOP	STOP 12	112 E	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	
State	/	Service primitive	T-DISCON	T-EXPT				x					
	/	Protocol event			R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP
	Event	Local											

		Final state	×	×	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	DS 7.1 x	×
	DS 3.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3) (EALL) (FALL)	S-P-EXPT S-P-EXPT IND (FAIL)	SPEXPT ND (ERR) 3) (ERR) 3) SPEXPT ND (FAIL)	S-P-EXPT IND (FAIL)
	ŝ	Protocol action											
		Timer	STOP T2	STOP 122	STOP 72	STOP 12	STOP	stop 12	STOP T2	STOP T2	STOP T2	STOP 12	STOP 12
		Final state	×		х	DS 7.1	×	DS 7.1	×	DS 7.1 x	×	DS 7.1 x	×
nt send	DS 2.1	Service primitive	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT (PALL)	S-P-EXPT S-P-EXPT IND (FAIL)	SPEXFT IND (ERR) 3) SPEXFT SPEXFT (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
9 Document send	DS	Protocol action			— — — — — — — — — — — — — — — — — — —								
		Timer	STOP T2	STOP 12	STOP 12	STOP T2	STOP T2	STOP	STOP T2	STOP T2	STOP T2	STOP T2	STOP 12
		Final state	×	×	×	×	×	×	×		*	×	
	DS 1.1	Service primitive	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-FEXPT S-FEX	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT	S-P-EXPT IND (FAIL)
	SQ	Protocol action]]]]]]]]]				/			<u> </u>	
		Timer			— 				,				
		Final state	×	×	×	×	×	×	×	×	×		×
t I	1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S.P.EXPT S.P.EXPT S.P.EXPT (FAIL) (FAIL)	SP-EXPT SP-EXPT ND (FAIL)	SP-EXPT SP-EXP	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
Wait	8.1	Protocol action											
		Timer	STOP T2	STOP 12	STOP 12	STOP T2	STOP T2	stor T2	STOP 12	stor T2	STOP 12	STOP T2	STOP 12
Ctate State		Service primitive						~ ~ ~ ~ ~ ~ ~			•• · ·		
	;;	Protocol event	R-CSUI/ CDS	R-CSUI/ CDC (C)	R-CSUI/ CDCL	RDCLP	R-CSUI/ CDE (I)	RDEP (K)	R-CSUI/ CDD	R.RSUI/ RDDP	R-CSUI/ CDR	RDRP	R-csul/ cDUI
	Event	Local											

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F	1	1		,						1 1			_
		Final state	DS 7.1	×	DS 3.1	DS 3.1	DS 7.1	DS 7.1	×	×		×	
	DS 3.1	Service primitive	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-SYNC MIN CONF R=R+1	S-SYNC MIN CONF R=R+1	S-U-EXPT IND 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
	SQ	Protocol action											_
		Timer	STOP T2	STOP T2	RESTART	STOP T2	STOP T2	STOP		STOP 12		STOP 12	
		Final state	1.1 SU	×	DS 2.1	DS 2.1	DS 7.1	DS 7.1		×		×	
ent send	1.1	Service	SP-EXPT IND (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3) (ERR) 3)	S-P-EXPT IND (FAIL)	S-SYNC MIN CONF R=R+1	SSYNC MIN CONF R=R+I	S-U-EXPT IND 3) S-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
9 Document send	DS 2.1	Protocol action]		~					<u> </u>				
		Timer	STOP 1	STOP	RESTART T2	STOP T2	STOP 12	STOP	2	40LS		STOP T2	
		Final state	×	×	×	×		~_~ <u>~</u>		×			
	DS 1.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT	(FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)			
	DS	Protocol action			 ! ! ! ! ! !			 	-,				
		Timer											
		Final state	×	×	×	×	×	×		×		×	Î
Wait	8.1	Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND	(FAIL)	S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
1 ²⁵		Protocol action											
		Timer	STOP T2	STOP 12	STOP	STOP T2	STOP 12	stor	2	STOP T2		STOP 12	
Ctato	, , , , , , , , , , , , , , , , , , ,	Service											
	/	Protocol event	R-RSUI/ RDGR	R-CSUI/ CDPB (I)	RDPBP (K) RDPBP (K) AK=R AS>R	R-RSUI/ RDPBP (K) AK=R AS=R+1	RDPBN	ANY OTHER DOCUMENT COMMAND OR RESP.	FORMAT IN CON- NECTION WITH RSUI	ANY OTHER COMMAND OR RESP OR WRONG FORMAT			
/	Event	Local event									EXPIRY OF TI	EXPIRY OF T2	EXPIRY OF T3

		4.1	4,1
ate Timer Protocol ate action	Final Timer state	Service Final Timer primitive state	mer Protocol Service Final Timer action primitive state
		/	/
	<u> </u>		
	<u> </u>	<u> </u>	
.1 T3		14.1 START	I4.1 START

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	Stata								9 Docur	9 Document send	·						
Event			SQ	DS 4.1			D2	DS 5.1			DS	DS 6.1			ğ	DS 7.1	
Local Protocol event event	I Service	Timer	Protocol action	Service primitive	Finat state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive 	Final state
	S-ACT BEG (START) REQ	ļ			Î												(
	S-ACT BEG (CONT) REQ (C)													 			
	S-DATA REQ								Î				()			(
	SACT BCAD REQ	START T2	s-csul/		D.9.2	START 12	S-CSUI/		1.9 SQ					START T2 T2	s-csul/ CDD		DS 9.1
	S-ACT DCAD RESP																Î
	S-ACT INT REQ	START T2	S-CSUI/ CDR	— • •	DS 8.1	START T2	S-CSUI/ CDR		DS 8.1	START T2	S-CSUI/ CDR		DS 8.1	START T2	s-csul/ cDR		DS 8.1
	SACT INT RESP																
	S-CAPAB DATA REQ																
	SCAPAB DATA RESP																
	T-CONF			 	Î				Î				Î				
	T-DISCON	STOP T2		S.P.ABT IND	0.1	STOP T2	 	S-P-ABT IND	0.1	STOP T2		S-P-ABT IND	0.1			S-P-ABT IND	0.1

(FAIL)
ANA ANA
·
(FAIL)
STOP
SP-EXPT
STOP
×
SP-EXPT
STOP
R-CSUI/

		e e							-		-		
		Final state	×	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	
	DS 7.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
	DS	Protocol action											
		Timer								~			
		Final state	×	×	DS I.I	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	DS 7.1
	6.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-CAPAB DATA CONF	SP-EXPT IND (FAIL)	S.P.EXPT IND (ERR) 3) S.P.EXPT S.P.EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SPEXPT SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)
	DS 6.1	Protocol action											
nt send		Timer	STOP T2	STOP T2	STOP 12	STOP T2	STOP T2	STOP T2	T2 T2	STOP T2	STOP 1	STOP T2	STOP 1.
9 Document send		Final state	×	×	DS 7.1	×	DS 1.1	×	DS 7.1	×	DS 7.1	×	DS 7.1
	5.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT S-P-EXPT IND	S-P-EXPT IND (FAIL)	S-ACT END CONF	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FALL)	S-P-EXPT S- IND (FAIL)	SP-EXPT IND (ERR) 3) (ERR) 3) S-EXPT (IND (FAIL)	S-P-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT SPEXPT (FAIL)
	DS 5.1	Protocol action											
		Timer	STOP T2	STOP T2	T2 T2	STOP T2	T12 T2	STOP 1	STOP T2	T2 T2	STOP T2	STOP T2	STOP
		Final state	×	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	DS 7.1	×	DS 7.1
	4.1	Service primitive	S-P-EXPT IND (FAIL)	S.P.EXPT S.P.EXPT IND (FAIL)	SP.EXPT IND (ERR) 3) SP.EXPT SP.EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (TAIL)	SP-EXPT	SP-EXPT ND (ERR) 3) SP-EXPT IND (TAIL)
	DS 4.1	Protocol action											
		Timer	STOP T2	STOP 1	STOP 12	STOP T2	STOP T2	STOP T2	STOP 12	STOP 12	stop 12	210P	STOP T2
State 1	/	Service primitive		→ — — •									<u></u>
	/	Protocol event	R-CSUI/ CDC (C)	Br-CSUI/	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUI/ RDEP (K) AK=R	R-CSUI/	R-RSUI/ RDDP	R-CSUI/ CDR	R-RSUI/ RDRP	R-CSUI/ CDUI	R-RSUI/ RDGR
Į	Event	Local event								·			<u></u>

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TABI

DS 4.1 Service Timer Protocol Service Final Timer	DS 4.1	S4.1 Service Final	ervice Final		Timer		DS 5.1 Protocol S	5.1 Service	9 Docun	9 Document send	· w	6.1 Service	Final	Timer	DS	DS 7.1	Final
<u> </u>		STOP T2		Primitive S-P-EXPT IND (FAIL)	state x	STOP T2	action	Primitive S-P-EXPT IND (FAIL)	x state	STOP		Priminve S-P-EXPT IND (FAIL)	x			S-P-EXPT S-P-EXPT IND (FAIL)	X
				S-SYNC MIN CONF R=R+1	DS 2.1			S-SYNC R-R+1 R=R+1	DS 5.1	STOP 1		SP-EXPT IND (ERR) 3) (ERR) 3) SP-EXPT IND (FALL)	DS 7.1				DS 7.1
:		STOP T2		SSYNC SSYNC MIN CONF R=R+1	DS 2.1	STOP 12 STOP 12		SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	L.T 20	STOP 1		SPEXPT IND (ERR) 3) SPEXPT (ND (FALL)	DS 7.1 x				DS 7.1
		STOP T2		S-U-EXPT IND 3) S-EXPT IND (FAIL)	DS 7.1	STOP T2		SU-EXPT IND 3) SP-EXPT IND (FAIL)	DS 7.1	STOP T2		S-P-EXPT IND (ERR) 3) S-P-EXPT S-P-EXPT IND (FAIL)	DS 7.1				DS 7.1
	• — — — —	STOP		S-P-EXPT IND (ERR) 3)	DS 7.1	STOP		SP-EXPT IND (ERR) 3)	DS 7.1	and the second s		S-P-EXPT IND (ERR) 3)	DS 7.1	· · · · · · · · · · · · · · · · · · ·			1.7 ZQ
		2		S-P-EXPT IND (FAIL)	×	7	·	S-P-EXPT IND (FAIL)	×	- <u></u> -	•	S-P-EXPT IND (FAIL)	×				
ı !		STOP 12		SP-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT IND (FAIL)	×	STOP 12		S-P-EXPT IND (FAIL)	×			S-P-EXPT S-P-EXPT IND (FAIL)	x
	· <u> </u>			·				·	Î								
:		STOP T2		S-P-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT IND (FAIL)	×	STOP 12		S-P-EXPT IND (FAIL)					

		Final state				((Î			14.1	
Wait	10.1	Service											
W	УI	Protocol action										\$-CSA	
		Timer))			START T3	
		Final state	(Î		(1.4.1	
	9.1	Service primitive											
	DS 9.1	Protocol action										S-CSA	
ent send		Timer										T3 T3	
A Document send		Final state					 				Î	14.1 15	<u> </u>
	r.1	Service primitive		~									
	DS 8.1	Protocol action										SCSA	
		Timer										START T3	
State	/	Service primitive	S-CON REQ	S-REL REQ	S.CTRL GIVE REQ	SCTRL GIVE RESP	S-SYNC MIN REQ (1)	S-SYNC MIN RESP (K) A K=Q	su-expt req	SACT END REQ (I)	SACT END RESP (K)	S-U-ABT REQ	S-U-ABT RESP
1	; ;	Protocol event											
{	Event	Local event					·		·				<u> </u>

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DI Se la Constitución de la Cons	Timer Protocol Service Final Timer Protocol Service										
State	Service Timer	S-ACT BEG (START) (REQ	S-ACT BEG (CONT) REQ (C)	S-DATA (SACT BCAD REQ	S-ACT Control	S-ACT INT REQ (SACT SACT INT RESP (S-CAPAB DATA REQ (S-CAPAB S-CAPAB C-CAPAB S-CAPAB C-CAPAB C-CAPA	T-CONF (

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		Final state	,	× 	×	×	×	×	×	1.1	×	× .	DR 1.1	×
it	10.1	Service	S-P-EXPT	(FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SCTRL GIVE CONF	S-P-EXPT IND (FAIL)
Wait	Ē	Protocol action												
		Timer	STOP	17	STOP T2	STOP T2	STOP 72	STOP T2	STOP 12	STOP 12	STOP T2	STOP T2	STOP T2 START T1	STOP T2
		Final state	DS 9.1	×	×	×	×	×	×	۱.۲	×	*	×	×
	DS 9.1	Service primitive		S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S.ABT IND	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DS	Protocol action								— — — — 		 	· · · · · · · · · · · · · · · · · · ·	
ent send		Timer		STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP 12	STOP T2
9 Document send		Final state	DS 8.1	×	*	×	×	×	×	7.1	×	×	×	*
	8.1	Service primitive		S-P-EXPT (PD (PAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT (ND (I'AIL)
	D\$ 8.1	Protocol action												
		Timer		STOP T2	STOP T2	STOP 12	STOP T2	STOP T2	STOP T2	STOP 172	STOP 12	STOP T2	STOP T2	STOP T2
State		Service primitive	1	QNI	• <u> </u>					• -•				
	/	Protocol event			R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP	R-CSUI/ CDS
/	Event	Local event					— — — — — — — 			~ 				

		Final state	×	×	×	×	×	x	×	×	×	×	×
Wait	-	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FALL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
M	10.1	Protocol action											
		Timer	STOP T2	STOP 12	STOP 12	STOP 12	STOP T2	STOP T2	STOP T2	STOP T2	stop T2	STOP T2	STOP T2
		Final state	×	×	D.9.1	×	DS 9.1	×	DS 1.1	×	DS 9.1	×	DS 9.1
	9.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	SACT DCAD CONF	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
	DS 9.1	Protocol action											
9 Document send		Timer	STOP 12	STOP T2		STOP T2		STOP T2	STOP T2	STOP T2		STOP T2	
9 Do <u>c</u> u		Final state	×	× .	DS 8.1	×	DS 8.1	×	DS 8.1	×	DS 1.1	×	DS 8.1
	8.1	Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)		S-P-EXIPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)	S-ACT INT CONF	SP-EXPT IND (FAIL)	
	DS 8.1	Protocol action											
		Timer	STOP 12	STOP T2		STOP T2		STOP T2		T12	STOP T2	STOP T2	
		Service primitive								1			
		Protocol event	R-CSUI/ CDC (C)	R-CSUI/ CDCL	RDCLP	R-CSUI/ CDE (I)	RDEP (K)	R-CSUI/	R-RSUI/ RDDP	R-CSUI/ CDR	R-RSUI/ RDRP	R-CSUI/ CDUI	R-RSUI/
	Event	Local											

		Final state	×	×	×	×	×	Î	×	
it 	1	Service primitive	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)	
Wait	10.1	Protocol action	— <u></u>							
		Timer	STOP T2	STOP T2	stop 12	STOP	STOP 12		STOP T2	
		Final state	×	DS 9.1	DS 9.1		×	Î	×	
	DS 9.1	Service primitive	S-P-EXPT S-P-EXPT IND (FAIL)				S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)	
	DS	Protocol action	 							
ent send		Timer	stor 172			••• ••• ••• ••• ••• ••• ••• ••• ••• ••	STOP T2		STOP	
9 Document send		Final state	×	DS 8.1	DS 8.1	DS 8.1	×	Î	×	
	DS 8.1	Service primitive	S-P-EXPT IND (FAIL)				S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
	SQ	Protocol action								
		Timer	STOP T2				STOP T2		STOP 172	
State		Service primitive								
i	/	Protocol event	R-CSUI/ CDPB (I)	R-RSUI/ RDPBP (K)	RDPBN	ANY OTHER DOCUMENT COMMAND COMMAND OR RESP OR	ANY OTHER OR RESP OR RESP OR WRONG	• — — — — —		
/	Event	Local event						EXPIRY OF T1	EXPIRY OF T2	EXPIRY OF T3

Calling terminal	ć								II Document receive	ent receive							
Event	State		DR 1.1	1.1			DR	DR 2.1			DR 3.1	3.1			DR 4.1	1.1	
Local Protocol event event	col Service It primitive	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
	SCON REQ																
	 Srel req																
	S-CTRL GIVE REQ																
	S-CTRL GIVE RESP																
; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	S-SYNC S-SYNC MIN REQ (I)								 		·_						
	S-SYNC S-SYNC MIN RESP (K) AK=Q					RESTART T1	S-RSUI/ RDPBP(K)	COUNTER: Q=Q+1	DR 2.1	RESTART T	S-RSUI/ RDPBP (K)	COUNTER:	DR 3.1	START T1	S-RSUI/ RDPBP (K)	COUNTER:	DR 2.1
	s-u-expr Req				(RESTART	S-RSUI/ RDPBN		DR 7.1	TI TI	S-RSUI/ RDPBN	·	DR 7.1	START T1	S-RSUI/ RDPBN		DR 7.1
	SACT END REQ (1)																(
	SACT END RESP (K)				Î												
	S-U-ABT REQ	START T3	S-CSA		14.1	START T3	scsA		14.1	START T3	S-CSA		14.1	START T3	S-CSA	·	14.1
	S-U-ABT RESP				 									<u> </u>			Î

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	`		1.4						<u>-</u>	<u> </u>			1	_
		Final state	DR 4.1	×	×	×	×	×	×	7.1	×	×	×	DR 7.1
	DR 4.1	Service primitive	(ERR) 3)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT ND (FAIL)	SP-EXPT IND (ERR) 3)
	[Q	Protocol action		[S-RSUI/ RDGR
		Timer						 					\	START Ti Ti
		Final state	DR 3.1	×	×	×	×	×	×	7.1	×	×	×	DR 7.1
	DR 3.1	Service primitive	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SABT IND	S.P.EXPT S.P.EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT ND (FAIL)	SP-EXPT ND (ERR) 3)
	лц	Protocol action												R-RSUI/ RDGR
11 Document receive		Timer		STOP T1	STOP	STOP T1	TI	STOP	TIOP	STOP T1	TOL	TI and the second secon	110°	RESTART
11 Docun		Final state	DR 2.1	×	×	×	×	×	×	T'L	×	×	×	DR 7.1
	DR 2.1	Service primitive	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT ND (ERR) 3)
	Ŋ	Protocol action											<u> </u>	SRSUI/ RDGR
		Timer		STOP T1	STOP T1	TI	aora TT	STOP TI	TI	STOP	STOP T1	STOP TT	STOP	RESTART
		Final state	DR 1.1	×	×	×	×	×	×	1.1	×	12.1	×	DR 2.1
	1.1	Service primitive	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT END (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-CTRL GIVE IND	S-P-EXPT S-D (FAIL)	S-ACT S-ACT (START) IND
	DR 1.1	Protocol action												
	ļ	Timer		STOP T1	STOP	STOP T1	STOP	aorts IT	STOP T1	STOP	STOP TI	STOP	STOP	RESTART T1
State		Service	T-EXPT	QN										
/	/	Protocol cvent			R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP	R-CSUI/
/	Event	Local event								 				

																	
		Final state	DR 7.1	×	DR 7.1	×	×	DR 7.1	×	×	DR 9.1	, ×	DR 8.1	*	DR 7.1	×	×
	4.1	Service primitive	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXFI IND (FAIL)	SP-EXPT IND (FAIL)	SACT DCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	(FAIL)	S-P-EXPT IND (FAIL)
	DR 4.1		S-RSUI/ RDGR		S-RSUI/ RDGR			S-RSUI/ RDGR							s-rsul/ RDGR		
			START T1		TI TI			START T1					 = = =	 	START T1		
		Final state	DR 7.1	×	DR 7.1	×	×	DR 5.1		×	DR 9.1	×	DR 8.1	×	DR 3.1		×
		Service primitive	SP-EXPT IND (ERR) 3)	S-P-EXPT	S.P.EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXP	S-ACT		S-P-EXPT S-EXPT ND (FAIL)	SACT BCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	S-P-EXPT IND (FAIL)	SDATA		S-P-EXPT S-P
	DR 3.1	Protocol action	S-RSUI/ RDGR		S-RSUI/ RDGR											_	
11 Document receive		Timer	RESTART T1	STOP	RESTART	TI	STOP Ti	STOP	E E	STOP 11	STOP	TI	STOP	STOP TI	RESTART		T1 T1
11 Docum		Final state	DR 7.1	×	DR 7.1	×	×	DR 7.1	×	×	DR 9.1	×	DR 8.1	×	DR 3.1		×
	2.1	Service primitive	S-P-EXPT IND FERD 3)	SPLEXPT	S.P.EXPT S.P.EXPT IND FERRY 31	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SACT DCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	SP-EXPT SP-EXPT IND (FAIL)	SDATA		S-P-EXPT IND (FAIL)
	DR 2.1	Protocol action	S-RSUI/ RDGR	1	S-RSUI/ RDGR	!		S-RSUI/ RDGR									
		Timer	RESTART T1	STOP	RT		STOP	RESTART	STOP T1	TIOP	STOP	STOP	STOP T1	STOP	RESTART		TI TI
		Final state	1	DR 2.1		DR 6.1	×	DR 7.1	×	×	DR 9.1	×	DR 8.1	×	DR 7.1	×	×
	DR 1.1	Service primitive	S-ACT			DATA IND	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT IND (FER) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SACT DCAD IND	S-P-EXPT S-P-EXPT IND (FAIL)	SACT SACT INT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DR	Protocol action						S-RSUI/ RDGR							S-RSUI/ RDGR		
		Timer		T1 T1			Aous	RESTART T1	STOP T1	STOP TI	STOP	TIOP	TIOP	LI	RESTART T1	STOP T1	TI TI
State	/	Service primitive															
	/	Protocol event		CDC (C)		CDCL CDCL	R-RSUI/ RDCLP	R-CSUI/ CDE (I)		R-RSUI/ RDEP (K)	R-CSUI/ CDD	RDDP	R-CSUI/	R-RSUI/ RDRP	R-CSUI/		R-RSUI/ RDGR
/	Event	Local event															

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[]	1			<u> </u>	, <u> </u>	1 1		1 1	1	1	1	1	1
		Final state	DR 4.1	7.1 NU	DR 4.1 3)	DR 7.1	DR 4.1	DR 7.1	×	×	DR 7.1	×	×
	DR 4.1	Service primitive	S-SYNC MIN IND 5)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-SYNC MIN IND 5)	SP-EXPT IND (ERR) 3) S-P-EXPT ND ND FAIL)	SSYNC MIN IND 5)	SP-EXPT ND (ERR) 3) SP-EXPT ND ND	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
	ī	Protocol action		S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR			S-RSUI/ RDGR		
		Timer		START T1 T1		START		TI			START T1		
		Final state	- 			DR 4.1	DR 2.1 3)	DR 7.1	x	×	DR 7.1	×	×
	DR 3.1	Service primitive	SYNC MIN IND	COUNTER: P=P+I	S-SYNC MIN IND	COUNTER:	S-SYNC MIN IND 6)	SP-EXPT SP-EXPT IND (ERR) 3) SP-EXPT IND	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
	DR	Protocol action						s-rsui/ RDGR			S-RSUI/ RDGR		
11 Document receive		Timer	RESTART	E			RESTART TI	RESTART TI STOP	AOT STOP	STOP .	RESTART	aoli II	- dors IT
11 Docu		Final state	DR 2.1 3)	DR 7.1	DR 2.1 3)	DR 7.1 x	DR 2.1	DR 7.1	×	×	DR 7.1	×	×
	DR 2.1	Service primitive	SSYNC MIN IND 5)	S-P-EXPT RND (ERR) 3) S-P-EXPT RND FAIL)	S-SYNC MIN IND 5)	S.P.EXPT ND (ERR) 3) S.P.EXPT ND (FAIL)	S-SYNC MIN IND 5)	SP-EXPT SP-EXPT (ERR) 3) S-P-EXPT ND	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
	DR	Protocol action		SrSUI/ RDGR		SRSUI/ RDGR		S-RSUI/ RDGR			S-RSUI/ RDGR		
		Timer	RESTART T1	RESTART T1 STOP T1	RESTART TI	RESTART TI STOP TI	RESTART	RESTART T1 STOP	STOP	TIOP	RESTART	TI and the second secon	TI
		Final state	L.7. NG	×	DR 7.1	×	DR 7.1		×	×	DR 7.1	×	×
	DR 1.1	Service primitive	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DR	Protocol action	S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR				S-RSUI/ RDGR		
		Timer	RESTART T1	STOP	RESTART	STOP T1	RESTART T1	aors	STOP	aolis	RESTART	aots TT	TI TI
State		Service primitive											
	/	Protocol event	R-CSUI/ CDPB (I)	VI=P VI=P	R-CSUI/ CDPB ()		R-CSIII/		R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COMMAND OR RESP	FORMAT IN CON- NECTION WITH SSUI	ANY OTHER COMMAND OR RESP OR WRONG FORMAT
/	Event	Local event											

/	State								11 Document receive	ent receive							
Event	/ 	 	DR	DR 1.1			DR 2.1	2.1			DR 3.1	3.1			DR	DR 4.1	
Local Prot event even	Protocol Service event primitive	ce Timer		Protocol Service action primitive	Final state	Timer	Protocol Service action primitive	Service primitive	Final state	Timer	Protocol Service action primitive	Service primitive	Final state	Timer	Protocol action	Service	Final state
EXPIRY OF T1		TI		SP-EXPT SP-EXPT IND (FAIL)	×	TI		S.P.EXPT IND (FAIL)	×	STOP T1		S-P-EXPT IND (FAIL)	×				
EXPIRY OF T2													Î				
EXPIRY OF 13																	Î

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		State								11 Docum	11 Document receive							
Event	/	/		DR	DR 5.1			DR	DR 6.1			ЯQ	DR 7.1			DR	DR 8.1	
Local Pro	Protocol event 1	Service primitive	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service	Final state	Timer	Protocol action	Service	Final state
		S-CON REQ)							
	&	S-REL REQ																
		S-CTRL GIVE REQ																
	<u> </u>	SCTRL GIVE RESP				Î)			(
	<u> ທ2ຊ</u> 	S-SYNC S-SYNC MIN REQ (1)																
		S-SYNC S-SYNC MIN RESP (K) AK=Q		S-RSUI/ RDPBP (K) Q-Q+1	COUNTER: Q=Q+1	DR 5.1												
· · · · · · · · · · · · · · · · · · ·	<u></u>	s-U-EXPT S	START T1	S-RSUI/ RDPBN		DR 7.1												
	<u>∾≃</u>	S.ACT END REQ (I)							·									
·	<u></u>	S-ACT END S-ACT END S-T T	START T1	S-RSUI/ RDEP		DR 1.1				Î								(
		S-U-ABT S-U-ABT S-REQ	T3ART	S-CSA		14.1	START T3	S-CSA	~	14.1	START T3	scsA		14.1	START T3	S-CSA		14.1
	്	s-U-ABT RESP							<u> </u>									
-	-	-	-	-	-	-	-	-	-	-		-	-	-		-	-	-

		Final state							DR 1.1				0.1
	DR 8.1	Service primitive											S-P-ABT IND
	DR	Protocol action		·					S-RSUI/ RDRP				
		Timer)		START				
		Final state				(<u> </u>		<u> </u>	<u> </u>		0.1
	DR 7.1	Service primitive											S-P-ABT IND
	DR	Protocol action											
ent receive		Timer											ao Ta
11 Document receive		Final state									DR 1.1		0.1
	DR 6.1	Service primitive											SP-ABT IND
	DR	Protocol action									S-RSUI/ RDCLP		
		Timer									START T1		
		Final state			Î								0.1
	5.1	Service primitive											S-P-ABT IND
	DR	Protocol action											
		Timer											
	State	Service primitive	SACT BEG (START) REQ	SACT BEG (CONT) REQ (C)	S-DATA REQ	SACT SACT DCAD REQ	S-ACT S-ACT DCAD RESP	S-ACT S-ACT INT REQ	S-ACT S-ACT INT RESP	SCAPAB DATA REQ	SCAPAB DATA RESP	T-CONF	T-DISCON
ùnal	/	Protocal event		— — — — — — — — — 	~_ ~								
Calling terminal	Event	Local event								— — — — 			

1	1			· · ·			1						<u> </u>
		Final state	×	×	×	×	×	×	7.1	×	×	×	×
	8.1	Service primitive	S-P-EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXP	S-P-EXPT IND (FAIL)	S-ABT L	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT ND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
	DR 8.1	Protocol action					— — — — – 1 1 1 1				· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>
		Timer											<u>-</u>
		Final state	×	×	×	×	×	×	7.1	×	<u>-</u>		DR 7.1
. 1	1.7	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SABT	SP-EXPT IND (FAIL)	SPEXPT	SP-EXPT SP-EXPT IND (FAIL)	<u>-</u>
	DR 7.1	Protocol action											
ent receive		Timer	STOP T1	STOP T1	STOP	STOP T1	and the second s	STOP	TI TI	STOP	STOP	TI	
11 Document receive		Final state	DR 6.1	×	*	×	×	×	F.2	×	×	×	DR 7.1
	6.1	Service primitive	SP-EXPT IND IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT S-ABT UNI	SP-EXPT IND (FAIL)	S-P-EXPT S-FXPT	S-P-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT SPEXPT IND (FAIL)
	DR 6.1	Protocol action											S-RSUI/ RDGR
		Timer]]]] [] []	<u> </u>	! 	START START
		Final state	DR 5.1	×	. ×	*	×	×	1.1	×	×	×	DR 7.1
	5.1	Service primitive	S.P.EXPT IND (ERR) 3) S.P.EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)
	DR 5.1	Protocol action						- 					S-RSUI/ RDGR
		Timer		- <u></u> -									START 11 11
State	//	Service primitive	T-EXPT IND										
/	/	Protocol event		R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP	R-CSUI/ CDS
	Event	Local event											

						<u> </u>			·				
		Final state	×	×	×	×	×	×	×	×	×	×	×
	DR 8.1	Service primitive	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SPILL	SP-EXPT SP-EXP	S-P-EXPT S-P-EXPT IND (FAIL)
	DR	Protocol action											
		Timer								<u>-</u>			
		Final state	DR 7.1	DR 7.1	×	DR 7.1	×	DR 9.1	×	DR 8.1		DR 7.1	×
	1	Service primitive	r		S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	SACT BCAD IND	SP-EXPT IND (FAIL)	SACT INT IND	SP-EXPT		S-P-EXPT S-P-EXPT IND (FAIL)
	DR 7.1	Protocol action I			<u> </u>			<u>- 20</u>				 	
nt receive		Timer			TOP		TI	STOP T1	STOP T1 T1	STOP T1	TOP TOP	 	STOP
11 Document receive		Final state	DR 7.1	DR 7.1	×	DR 7.1	×	DR 7.1 S	×	DR 8.1	×	DR 7.1	×
	F	Service primitive	PLEXPT	SPEXPT IND ERR) 3) - SP-EXPT IND (FAIL) -	S-P-EXPT IND (FAIL)	SPEXPT ND (ERR) 3) SPEXPT ND (FAIL)	SP-EXPT IND (FAIL)	SP.EXPT IND (ERR) 3) S.F.EXPT IND (FAIL)	S-P-EXPT SND (FAIL)	S-ACT INT IND	S-P-EXPT S-D-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DR 6.1	Protocol action	RDGR	S-RSUI/ RDGR	<u></u>	RDGR RDGR	<u></u>	RDGRUIT NDGRUIT	<u>945</u>		<u></u>	S-RSUI/ RDGR ERDGR	
		Timer	START T1 F	TI TI TI		START S TIART S TIART S		START TI R R				START SH	
		Final state	DR 7.1	DR 7.1 S	×	DR 7.1 S1 T1 T1	×	DR 9.1	×	DR 8.1	×	DR 7.1 ST T1 X	~ ×
			1 1	SPEXPT I IND (ERR) 3) (ERR) 3) SPEXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SPEXFT IND SPEXFT SPEXFT IND (FAIL)	S-P.EXPT IND (FAIL)	S-ACT S-ACT DCAD IND D	S-P-EXPT IND (FAIL)	SACT INT IND D	S-P-EXPT IND (FAIL)	SPEXPT D IND (ERR) 3) SPEXPT SPEXPT IND (FAL)	SP-EXPT IND (FAIL)
	DR 5.1	Protocol S action pi	RDGR RDGR EDGR EDGR	RDGR []		S-RSUI/	S- INI (F)		- <u>2n5</u> -1		EA EA		
		Timer Pr			· ••• ••• -					·		KT S-RSUI/ RDGR	
State	/	Service T primitive	TI	START 11		T1ART				·		START T1 T1	
ŝ	/	Protocol Ser event prin	 60	 B.	 È4				È.	· -			 F.,
	int	Local Prot event eve	R-CSUI/ CDC (C)	R-CSUI/	R-RSUI/ RDCLP	R-CSUI CDE (I)	R-RSUI/ RDEP (K)	CDD CDD	R-RSUI/ RDDP	CDR CDR	R-RSUI		RDGR
/ /	Event	C LOI									1		

Calling terminal	ninal									11 Document receive	ent receive							
Event	/	State		D	DR 5.1			DR	DR 6.1			DR 7.1	7.1			DR	DR 8.1	
Local event	Protocol event	Service primitive	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
		 				Î	START T1	S-RSUI/ RDGR	S-P-EXPT IND (ERR) 3)	DR 7.1			· •				S-P-EXPT	\$
	CDPB (I)		START T1	SrSul/ RDGR	SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	DR 7.1			S-P-EXPT S-P-EXPT IND (FAIL)	×							(FAIL)	v 1
	R-RSUI/ RDPBP (K)				S-P-EXPT S-P-EXPT IND (FAIL)	×			SP-EXPT SP-EXPT IND (FAIL)	×	STOP T1		S-P-EXPT IND (FAIL)	×			S-P-EXPT IND (FAIL)	x .
	R-FRSUI/ RDPBN				S-P-EXPT S-P-EXPT IND (FAIL)	×			SP-EXPT SP-EXPT IND (FAIL)	×	STOP TI		S-P-EXPT IND (FAIL)	×			S-P-EXPT IND (FAIL)	×
	ANY OTHER DOCUMENT COMMAND OR RESP		START T1	s-rsul/ RDGR	SP-EXPT SP-EXPT IND (ERR) 3)	DR 7.1	START T1	SRSUI RDGR	S-P-EXPT S-P-EXPT IND (ERR) 3)	DR 7.1							S-P-EXPT	×
	OR WRONG FORMAT FORMAT IN CON- NECTION WITH WITH CSUI				SP-EXPT IND (FAIL)	×			S-P-EXPT S-P-EXPT IND (FAIL)		— — — — — — — —						(FAIL)	
	ANY OTHER COMMAND OR RESP OR WRONG FORMAT				S-P-EXPT IND (FAIL)	×			S-P-EXPT S-EXPT IND (FAIL)	×	STOP		S-P-EXPT IND (FAIL)	×			S-P-EXPT IND (FAIL)	×
EXPIRY OF T1											STOP	·	S-P-EXPT IND (FAIL)	×				
EXPIRY OF T2)							Î								
EXPIRY OF T3										 								(

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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	 X	State	11	Documen	11 Document receive			M	Wait			M.	Wait			Wait	lit.	
Timer Timer <th< th=""><th></th><th>$-\frac{1}{7}$</th><th></th><th>DR 9.1</th><th>1</th><th></th><th></th><th>12</th><th>2.1</th><th></th><th></th><th>13</th><th>13</th><th></th><th></th><th>14.</th><th></th><th></th></th<>		$-\frac{1}{7}$		DR 9.1	1			12	2.1			13	13			14.		
1 1	- Si	i			Service	Final state	Timer			Final state	Timer	Protocol action	Service	Final state			Service primitive	Final state
1 1	z					Î				Î	 							
0 () () () 1 () () () 1 () () () 1 () () (ו ב ו	i				Î												
Bill Image: Second se	25	(- EQ				Î				Î	ļ			Î				
Image: second		i	<u> </u>					S-RSCCP		DS 1.1								
1 1			<u> </u>	<u> </u>		 												
D D <td></td> <td></td> <td></td> <td><u></u>-</td> <td><u>-</u> </td> <td> </td> <td></td>				<u></u> -	<u>-</u>	 												
D (<u> </u>														
D (T3 ((START SCSA 14.1 T3 T3 SCSA 14.1 T3 SCSA 14.1 T3 SCSA 14.1 (<u> </u>	<u>-</u>	- 													(
FTART ScSA 14.1 FTART ScSA 14.1 FTART ScSA 14.1 FTART ScSA 14.1			<u> </u>	<u>-</u>														
				<u> </u>	<u> </u>		START T3	S-CSA			START T3	S-CSA	<u> </u>	14.1				
	i 9			<u> </u>	<u>+</u> _			 										

terminal Calline

(continued)
/T.62
H-1
TABLE

—		· · · ·											
		Final state	14.1	14.1	14.1	14.1	14.1	 14.1	14.1	0.2 0.1	14.1	14.1	14.1
Wait	14.1	Service primitive								SABT SABT CONF SABT CONF/T- DISC REO			
M	14	Protocol action											
		Timer				— — — — , . 				aots STOP			<u></u>
		Final state	×	×	×			0.2 1)	7.1	×	· · · · · ·	×	×
Ŀŗ	-	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-REL CONF CONF/T- CONF/T- DISC REQ	SABT IND	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
Wait	13.1	Protocol action			~								
		Timer	STOP T2	210P	STOP 12	STOP 12	12 STOP	STOP T2	STOP T2	STOP 1	STOP	and the second s	STOP
		Final state	×	×	×	×	×	×	172	×	×	×	
Wait	-	Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT ND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXFT SP-EXFT IND (FAIL)	SABT UD TRD SABT	SP-EXPT	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP.EXPT SP.EXPT IND (FAIL)
M	12.1	Protocol action	·										
		Timer		- <u> </u>		<u> </u>					<u>_</u>		
		Final state	х	×	×	*	×	×	- I'L	×	×	×	×
11 Document receive	9.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SABT	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
11 Docurr	DR 9.1	Protocol action											
		Timer		- <u> </u>	· — — — –				•		•		
State		Service primitive	T-T-T-					·			- <u></u>		
	/	Protocol event		R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP	R-CSUI/
	Event	Local event				·			·		- <u></u>		

-		Final state	14. 1	[4.1		14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
uit	1	Service											
Wait	14.1	Protocol											
		Timer							••				
		Final state	×	×	×	×	×	×	×	×	×	×	×
It		Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FALL)	S-P-EXPT IND (FAIL)	SP-EXPT ND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)
Wait	13.1	Protocol action	·				- <u>-</u>						
		Timer	STOP T2	STOP T2	STOP T2	STOP T2	STOP	STOP T2	STOP	STOP 12	STOP T2	LT STOP	210P
		Final	×	×	×	×	×	×	×	×	×		×
		Service primitive	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	S.P.EXPT S.D.EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)
Wait	12.1	Protocol action											
		Timer				• 		<u> </u> 	r 	<u>-</u> 			
		Final state	×	×	×	×	×	×	×				×
nt receive	17	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)		SPEXPT SPEXPT IND (FAIL)
11 Document	DR 9.1	Protocol action	· · · ·									<u>-</u> 	
		Timer							<u>-</u>			<u>-</u>	
		Service primitive			<u>. </u>	<u>-</u>	<u>-</u>	·		<u>. </u>		'	<u>-</u>
		Protocol event	R-CSUI	R-CSUI/	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUI/ RDEP (K)	R-CSUI/	R-RSUI/ RDDP	R-CSUI/	R-RSUI/ RDRP	R-CSUI/	RDGR
	Event	Local											

		Final state	14.1	14.1	14.1	14.1	Î	(0.1
Wait	.1	Service			 ,				SP-ABT SP-ABT IND T-DISCON
W	14.1	Protocol action							
 		Timer			 		 		stor T3
		Final state	×	×	×	×	Î	×	
Wait	13.1	Service	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
M	13	Protocol action							
		Timer	STOP 12	STOP 12	STOP 12	STOP T2		STOP T2	
		Final state	×	×	×	×	Î		
Wait	12.1	Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)			
	12	Protocol action							
		Timer							
		Finat state	×	×	×	×	Î		
ent receive	DR 9.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT ND (FAIL)			
11 Document receive	Ŋ	Protocol action							
		Timer							
Chata		Service primitive							
;	;	Protocol event	R-CSUI/ CDPB (I)	R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COMMAND OR RESP OR WRONG FORMAT			
	Event	Local event			·		EXPIRY OF T1	EXPIRY OF T2	EXPIRY OF T3

	~_	State		W	ait	
Event					x	
Local event	Protocol event	Service primitive		Protocol action	Service	Final state
		S-CON REQ	(i 	_
				İ		
		S-REL REQ	(
	 	S-CTRL GIVE REQ	(
	 	S-CTRL GIVE RESP	(1	
	 	S-SYNC MIN REQ (I)	(-		 	
	 	S-SYNC MIN RESP (K)	(,	 	 	
	 	S-U-EXPT	 (!	 	
] 	 S-ACT END REQ (I) 	 (
	[S-ACT END RESP (K)	 (
	 	 S-U-ABT REQ 	 start T3 	 S-CSA 	· 	 14.1
	 	S-U-ABT RESP	 ([!

	~_	State	! 	W	ait	
Event				· ;		
Local event	Protocol event	Service	Timer		Service	Fina state
	 	S-ACT BEG (START) REQ	(
	 	S-ACT BEG (CONT) REQ (C)	 (- -	 	 	
	 	S-DATA REQ	 (
	- 	S-ACT DCAD REQ	(-
	 	S-ACT DCAD RESP	(·····	
		S-ACT INT REQ	(- -			
		S-ACT INT RESP			 	
		S-CAPAB DATA REQ		 	 	-
		S-CAPAB DATA RESP	 (
		T-CON CONF	 	 	 	
		T-DISCON IND	 	 	S-P-ABT	0.1

~

	- - -	State		W	ait				
Event	~~~~		x						
Local event	Protocol	Service	Timer	Protocol action	Service	Final state			
	1	T-EXPT IND				x			
	 R-CSS 	! 		 		x			
	 R-RSSP 	 		 		x			
	 R-RSSN 	 	_	 	 	x			
	 R-CSE 	 		 		x			
	 R-RSEP 					x			
	R-CSA			 	S-ABT IND	7.1			
	 R-RSAP 	 	 	 		x			
	R-CSCC		;]	x			
	R-RSCCP	 	 	 	 	x			
	R-CSUI/ CDS	 	[[[]	 	 	x			

Calling terminal

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	· ••••	State		W	ait	
Event					x	
Local event	Protocol event	Service		Protocol action	Service	Final state
	R-CSUI/ CDC (C)	 	 			x
	R-CSU1/ CDCL	 	 	 	 	x
	R-RSUI/ RDCLP]	 	 	 	
	R-CSUI/ CDE (1)		 	 	 	x
	R-RSUI/ RDEP (K)	 	 	 		 x
	R-CSUI/ CDD		 	 		
<u>u</u>	R-RSUI/ RDDP					x
	R-CSUI/ CDR					x
	R-RSUI/ RDRP		 			
	R-CSUI/ CDUI					
	R-RSUI/ RDGR					×
	Ι.					1

TABLE H-1/T.62 (end)

Calling terminal

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	·	State		W	ait	
Event				2	«	
Local event	Protocol event	Service primitive	Timer	Protocol action	Service primitive	Final state
	R-CSUI/ CDPB (I)		 	 	 	x
	R-RSUI/ RDPBP (K)					x
	R-RSUI/ RDPBN	-	<i>-</i> 	 [{	 	x
	ANY OTHER COMMAND OR RESP OR WRONG FORMAT	 	 	 	 	 x
EXPIRY OF T1)
EXPIRY OF T2	 	 	 ()
EXPIRY OF T3	 	 	 ({)

ï

		0.1			2	0.2	2				wait 	
Service Timer Pro	E A	Protocol action	Service primitive	Final state	Timer	Protocol action	Service	Final state	Timer	Protocol action	Service primitive	Final state
)			
S-CON RESP NEG		┊╴╴╽╶╸╴		Î								
	2					~						Î
SCTRL GIVE REQ (Î				Î
SCTRL GIVE RESP				 								
		<u> </u>		<u></u>								
		┾╾╎		 			<u> </u>					
SACT END REQ ()				 								
SACT END RESP (K) (
		<u>+</u> -		<u></u>		· · · · · · · · ·						

TABLE H-2/T.62 State traysition tables for called terminal

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ed

1				· · · · · ·									
		Final state	0.2		(Î	Î	Î		
Wait	1	Service											
8		Protocol action	[S-RSAP S-RSAP			·]				
	 	Timer	START T3 START T1))								
		Final state								Î	Î		
	0.2 7.1	Service primitive											
	ö	Protocol action											
Idle		Timer)))				
		Final state							Î				0.2
	1	Service primitive											T-CON RESP POS
	.0	Protocol action											
		Timer											START 1 T1
State		Service primitive	S-U-ABT RESP	SACT BEG (START) REQ	SACT BEG (CONT) REQ (C)	S-DATA REQ	S-ACT DCAD REQ	S-ACT DCAD RESP	S-ACT INT REQ	S-ACT INT RESP	S-CAPAB DATA REQ	S-CAPAB DATA RESP	T-CON IND T-CON IND AT-CON T1 ACCEPT.
	/	Protocol event											
/	Event	Local event											

		Final state		1.0	Γ.7	L.7	г.т	Γı	7.1	1.7	I'L	172	1.7
Wait	1.7	Primitive		S-P-ABT IND									
M	1	Protocol action											
		Timer	 										
		Final state		0.1	0.1	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.2	Service primitive			T-DISCON REQ	scon	T-DISCON REQ						
	0	Protocol action											
Idle		Timer)	TI V T3	STOP TIV T3	STOP	STOP TIV T3	STOP TI V T3	STOP T1 V T3	STOP TIV T3	STOP T1 v T3	STOP TIV T3	STOP T1 V T3
2		Final state	0.1										
	0.1	Service primitive	T-DISC REQ										
	0	Protocol action											
		Timer											
State		Service	TACCEPT.	T-DISCON [ND	T-EXPT IND								
	 	Protocol event				R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC
/	Event	Local							 				

		Final state	177	7.1	7.1	7.1	7.1	2.1	7.1	7.1	7.1		7.1
wait	7.1	Service primitive					 						
s	C	Protocol action											
		Timer											
		Final state	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
	0.2	Service primitive	T-DISCON REQ	T-DÍSCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON	T-DISCON REQ	T-DISCON REQ	T-DISCON REQ	T-DISCON	T-DISCON REQ
	Ö	Protocol action											
101¢		Timer	TIV T3	STOP TIV T3	STOP TIV T3	STOP TIVT3	STOP TIVT3	STOP TIV T3	STOP TIV T3	STOP TIV T3	STOP TI V T3	STOP T1 V T3	STOP TIV T3
¥		Final state			Î								
	0.1	Service primitive											
	0	Protocol action											
		Timer											
State	/	Service primitive											
į	/	Protocol event	R-RSCCP	R-CSUI/ CDS	R-CSUI/ CDC (C)	R-CSUI/ CDCL	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUI/ RDEP (K)	R-CSUI/ CDD	R-RSUI/ RDDP	R-CSUI/	R-RSUI/ RDRP
;;	Event	Local event										_	

Called terminal

		Final state	7.1	7.1	1.7	7.1	1.1	7.1			
Wait	7.1	Service primitive		/		1 					
W ₂	η.	Protocol action									
		Timer									
		Final state	0.1	0.1	0.1	0.1	1.0	0.1	0.1		
	5	Service primitive	T-DISCON REQ	T-DISCON	T-DISCON REQ	T-DISCON	T-DISCON	T-DISCON REQ	T-DISCON REQ		
	0.2	Protocol action							,, .		
Idle		Timer	STOP TIVT3	STOP TI V IT	STOP T1 V T3	STOP TIVT3	STOP TIVT3	STOP T1 V T3	AOTS TI		
Id		Final state									
		Service primitive									
	0.1	Protocol action									
		Timer									
		Service			— — — — — — — — 1 1 1 1 1	— — — — — – 					
		Protocol event	R-CSUI/ CDUI	R-RSUL/ RDGR	R-CSUI/ CDPB (1)	R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER COMMAND OR RESP OR WRONG		·	~
	Event	Local							EXPIRY OF TI	EXPIRY OF T2	EXPIRY OF T3

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		Service Final primitive state		·	·	·		DS 2.1	DS 4.1			 DS 5.1	
	DS 3.1	Protocol Se action prin				 		scsui/ copra (i) s=s+1	S-CSUI/ CDPB (1) S=S+1			scsul/ cpe (i)	
		Timer)	ļ))	START T2	START T2			START T2	
7		Final state				Î	Î			(Î	
ent send		Service primitive								· • • •			
4 Document send	DS 2.1	Protocol action										• ••• ••• •	
		Timer											
		Final state	 	(5.1						 	
	1.1	Service primitive											
	DS 1.1	Protocol action				scscc							
		Timer				START T2							
		Final state	DR 1.1	0.2			Î			(
ti .	1	Service primitive								•			
Wait	1.1	Protocol action	S-RSSP	S-RSSN									
		Timer	START T1	START T3									
500		Service primitive	S-CON RESP POS	S-CON RESP NEG	SREL	SCTRL GIVE REQ	SCTRL GIVE RESP	SSYNC MIN REQ() A I=S A I=S	SSYNC MIN A(S-R) A(S-R) A [=S	SSYNC MIN RESP (K)	S-U-EXPT	S-ACT END REQ (I)	SACT END RESP (K)
		Protocol event				1 1 1 1 1 1 1					•_ •_ •_ •		
///	Event	Local											

	-				0	~							
		Final state	14.1		_]		DS 3.1	1.6 SG		DS 8.1			
	DS 3.1	Service primitive	·					[
	SQ	Protocol action	S-CSA				s-csui/ cDUI	s-csul/ CDD		S-CSUI/ CDR			
	_	Timer	START T3					START T2	 	START T2			
		Final state	14.1				DS 3.1	DS 9.1		DS 8.1			
4 Document send	DS 2.1	Service primitive											
4 Docum	SQ	Protocol action	S-CSA				s-csul/ cout	s-csut/ cDD		s-csul/ CDR			
		Timer	START T3				1 1 1 1 1 1	START T2		START T2			
		Final state	14.1		DS 2.1	DS 2.1				Î		DS 6.1	
	DS 1.1	Service primitive											
	DS	Protocol action	s-csA		s-CSUI/ CDS S=R=1	S=R=C+1						s-csul/	
		Timer	START T3									START T2 T2	
		Final state	14.1	(Î			
it.	-1	Service primitive											
Wait	1.1	Protocol action	S-CSA								~ [~		
		Timer	START T3										
State	/	Service primitive	SU-ABT	S-U-ABT	SACT BEG (START) (START) REQ	SACT BEG (CONT) REQ (C)	S-DATA REQ	S-ACT BCAD REQ	S-ACT DCAD RESP	SACT INT REQ	S-ACT INT RESP	SCAPAB DATA REQ	SCAPAB DATA RESP
,	/ /	Protocol event			 								
/	Event	Local event										· · · · · ·	

	State 1.		W,	Wait							4 Document send	tent send					
1			1.	1.1			ă	DS 1.1			DS	DS 2.1			ğ	DS 3.1	
Protocol event	Service	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
	T-CON IND				Î												
	T-DISCON	 		S-P-ABT I	0.1			S-P-ABT IND	0.1	STOP 12		S.P.ABT IND	0.1	STOP		S-P-ABT IND	0.1
]	T-EXPT			S-P-EXPT				SP-EXPT SP-EXPT IND (FAIL)	×	stop T2		SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	DS 7.1	stop 12		SP-EXPT IND (ERR) 3) (ERR) 3) (ERR) 3) SP-EXPT SP-EXPT IND (FAIL)	DS 7.1 x
R-CSS				SP-EXPT SP-EXP	 ×			S-P-EXPT S-P-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT S-P-EXPT IND (FAIL)	×	STOP 12		SP-EXPT SP-EXPT IND (FAIL)	×
R-RSSP				SP-EXPT IND (FAIL)	×			SP-EXPT SP-EXPT IND (FAIL)	×	STOP T2		SP-EXPT SP-EXPT IND (FAIL)	×	STOP T2	 	S-P-EXPT IND (FAIL)	×
R-RSSN				SP-EXPT SP-EXPT ND (FAIL)	×			S.P.EXPT S.P.EXPT IND (FAIL)	×	STOP T2		SP-EXPT SP-EXPT IND (FAIL)	×	STOP T2	 	SP-EXPT SP-EXPT IND (FAIL)	×
R-CSE				SP-EXPT SP-EXPT IND (FAIL)				SP-EXPT SPILIND (FAIL)	×	STOP T2		S-P-EXPT S-P-EXPT IND (FAIL)	×	STOP T2		SP-EXPT SP-EXPT IND (FAIL)	×
R-RSEP				S-P-EXPT IND (FAIL)	×			S.P.EXPT S.P.EXPT IND (FAIL)	×	STOP T2		SP-EXPT SP-EXPT IND (FAIL)	×	STOP 12		SP-EXPT SP-EXPT IND (FAIL)	×
R-CSA				SABT IND				S-ABT IND	1.1	STOP T2		SABT SABT IND	1.1	STOP		SABT	1.7
R-RSAP	 			SP-EXPT SP-EXPT IND (FAIL)	×			S.P.EXPT IND (FAIL)	×	STOP T2		S.P.EXPT	×	STOP		SP-EXPT SP-EXPT IND (FAIL)	×
R	<u> </u>			S-P-EXPT S-P-EXPT IND (FAIL)	×			S-P-EXPT S-P-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT S-P-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT S-P-1 S-P-2 S-P	×

<u> </u>							1 1						<u> </u>
,		Final state	×	×	×	×	DS 7.1	×	DS 7.1	*	DS 7.1	×	DS 7.1 x
	DS 3.1	Service primitive	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FALL)
	DS	Protocol action											
		Timer	STOP T2	STOP T2	STOP T2	STOP T2	STOP T2	STOP 72	STOP 1	STOP T2	STOP T2	STOP T2	TI2
		Final state	×	×	×	×	DS 7.1		DS 7.1 ,		DS 7.1	×	- DS 7.1
nt send	1	Service primitive	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT IND (FALL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT ND (ERR) 3) SP-EXPT ND ND (FAIL)	SP-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT SPEXPT (FAIL)
4 Document send	DS 2.1	Protocol action											
		Timer	STOP T2	STOP T2	STOP T2	stop T2	STOP 12	STOP 12	STOP 12	STOP T2	210P	STOP T2	STOP
		Final state	×	×	×	×	×	×	×	×	×	×	
		Service Service	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	SP-EXPT SND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)
	1.1 20	Protocol action	- <u>-</u>										
		Timer											
		Final state	×	×	×	×	×	× ,	×	×	×	×	×
Wait	1.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
M	1	Protocol action								·'			<u></u>
		Timer	·										•
State	/	Service primitive											•
	/	Protocol cvent	R-RSCCP	R-CSUI/ CDS	R-CSUI/	R-CSUI/	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUJ/ RDEP (K) A K=R	R-csul/	R-RSUI/ RDDP	R-CSUI/	R-RSUI/ RDRP
//	Event	Local cvent									 		

DS 7.1 DS 3.1 DS 7.1 DS 3.1 DS 7.1 Final state × × × × × × S-SYNC MIN CONF R=R+1 SSYNC SSYNC MIN CONF S-U-EXPT IND 3) S-P-EXPT IND (FAIL) S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL) Service S-P-EXPT IND (FAIL) SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL) S-P-EXPT IND (FAIL) S-P-EXPT IND (FAIL) DS 3.1 Protocol action Timer STOP 12 STOP T2 STOP 72 STOP T2 STOP 12 STOP 72 STOP T2 DS 7.1 DS 2.1 DS 2.1 DS 7.1 DS 7.1 Final state × × × × × × Service S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL) S-P-EXPT IND (FAIL) SP-EXPT ND (ERR) 3) SP-EXPT SP-EXPT ND (FAIL) S-P-EXPT IND (FAIL) SP-EXPT IND (FAIL) S.U-EXPT S.U-EXPT IND S.P.EXPT IND (FAIL) S-SYNC MIN CONF R=R+1 S-SYNC MIN CONF R=R+1 4 Document send DS 2.1 | Protocol | action Timer STOP T2 STOP 12 STOP T2 STOP 12 STOP 12 STOP 12 5T0P 72 Final state × × × × × × × × S-P-EXPT IND (FAIL) Service DS 1.1 | Protocol | action Timer Final state × × × × × × × × Service primitive S-P-EXPT IND (FAIL) Wait 1.1 | Protocol | action Timer Service primitive State | Protocol | | event | p ANY DOTHER DOCIMENT COMMAND COMMAND OR WRONG OR WRONG FORMAT IFORMAT IFORMAT NECTION RUTH ANY OTHER COMMAND OR RESP OR WRONG FORMAT R-RSUI/ RDPBP (K) A K=R A S>R R-RSUI/ RDPBP (K) A K=R A S=R+1 R-CSUI/ CDPB (I) R-RSUI/ RDPBN RDGR R-CSUI/ CDUI Called terminal Local event Event

(continued)
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TABLE

	State		W	Wait							4 Document send	ent send					
Event //	/		1				SQ	DS 1.1		. .	DS 2.1	2.1			SU,	DS 3.1	
Local Protoc event event	Protocol Service event primitive	Timer	. Protocol action	Protocol Service service service	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol Service action primitive	Service primitive	Final state	Timer	[Protocol action	Service primitive	Final state
EXPIRY OF T1		ļ			 												
EXPIRY OF T2										STOP 12		SP-EXPT S-P-EXPT IND (FAIL)	×	STOP T2		S-P-EXPT IND (FAIL)	×
EXPIRY OF T3	 																

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(continued)
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TABLE

			$\hat{\mathbf{r}}$	$\hat{1}$	î	\hat{r}	î	î	î	î	,		
		Final state	- - <u> </u>		_ _ +		·				<u> </u>		
	DS 7.1	Service primitive	_	_									
	DS	Protocol action											S-CSA
		Timer								· [START T3
		Final state	(Î	Î	Î	 		Î	14.1
	7	Service primitive											
	DS 6.1	Protocol action											S-CSA
ent send		Timer											START T3
4 Document send		Final state			$\widehat{\left \right }$			Î			Î	 	I.4.1
	5.1	Service primitive											<u> </u>
	DS 5.1	Protocol action										~ -	SCSA
		Timer											START T3
		Final	Î			Î		 	 			 	14.1
	14	Service primitive											· ·
	DS 4.1	Protocol action								•••• •	<u> </u>		S-CSA
		Timer											START 1
Ctoto		Service primitive	S-CON RESP POS	S-CON RESP NEG	S-REL	SCTRL GIVE REQ	S-CTRL GIVE RESP	SSYNC MIN REQ (I)	SSYNC MIN RESP (K)	su-expr REQ	SACT END REQ (I)	S-ACT END RESP (K)	S-U-ABT 5 REQ
	/	Protocol event											
	Event	Local event			·	·	<u> </u>	<u> </u>	<u> </u>	 	<u>`</u> -		<u> </u>

	State		DS	DS 4.1			DS	DS 5,1	4 Docur	4 Document send	DS 6.1	6.1			1.7 2G	7.1	
Protocol event	Service primitive	Timer	Protocol action	Service primitive	Final	Timer	Protocol action	Service primitive	Final	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
	SU-ABT RESP																Î
	SACT BEG (START) REQ																
	SACT BEG (CONT) (CONT) REQ (C)																(
	SDATA REQ																
	SACT START DCAD REQ T2		scsut/		DS 9.1	START 12	scsul/		DS 9.1					START T2	s-csui/ CDD		DS 9.1
	SACT DCAD RESP				[
— — — — - 	SACT SACT INT REQ	START 12	s-csul/ cor	<u> </u>	DS 8.1	START T2	s-csui/ cor		DS 8.1	 START T2	s-csut/ CDR		DS 8.1	START T2	scsul/	<u> </u>	DS 8.1
	SACT SACT							<u> -</u>									(
_ <u></u>	SCAPAB DATA REQ				 		÷_ _	<u></u>			÷						
	SCAPAB SATA BATA RESP				 			<u></u>	<u> </u>								
	T-CON IND				 		÷	- -	<u></u> -)		<u>-</u> . 	

L

Vice Final Timer Protocol Service Final MF 0.1 270P Service Final 0.1 XFF x 172 Service Service Final XFF x 171 172 Service Final XFF x 171 171 X X XFF x 171		L.8 SU
0.1 57.0 b 54.0 b <th>Timer Protocol Service action primitive</th> <th>Final state</th>	Timer Protocol Service action primitive	Final state
DS 7.1 STOP SPLEXET SP	STOP [IND]	
x T2 T2 STOP SFLKPT (FALL) x T2 T2 SFLKPT (FALL) SFLKPT (FALL) x T2 SFLKPT (FALL) SFLKPT (FALL)	STOP STOP STOP STOP STOP STOP STOP STOP	DS 7.1
x STOP SPEERFT (FALL) x 72 SPEERFT (FALL) x 72 SPEERFT (FALL) x 71 71 x 720P ND	STOP STOP T2 (FALL)	×
x STOP T2 STOP FALL x SPEXFT FALL y.1 SPEXFT FALL x SPEXFT FALL	SP-EXP STOP T2 T2 (FAIL)	<u> %F</u>
x STOP T2 Step (FAIL) x Stop T2 Step (FAIL) x Stop T2 Step (FAIL) 7.1 STOP Step (FAIL) x Stop Step (FAIL)	STOP STOP T2 T2 (FAIL)	<u></u>
x STOP T2 SPEXFT IND 7.1 570F FALL) 7.1 570F 5ABT 7.1 570F 5ABT x 570P 5ABT x 570P 5ABT x 77 5ABT x 770P 770P	STOP STOP STOP STOP STOP STOP STOP STOP	<u> 67</u>
7.1 STOP SABT 7.1 173 SABT x STOP SPEXPT x STOP SPEXPT x STOP IND	STOP STOP T2 (FALL)	
x STOP SPEXFT x T22 F.A.L.) x STOP SPEXFT x STOP SPEXFT (F.A.L.) x STOP SPEXFT x STOP SPEXFT x STOP SPEXFT x STOP SPEXFT x SPE	STOP T2 IND	
x STOP SPEXFT IND T2 FALLIN (FALL) x STOP SPEXFT IND	SPEXP STOP T2 T2 (FAIL)	
x STOP STOP	STOP STOP IND (FAIL)	
(FAIL)	STOP STOP T2 (FAIL)	<u></u>

terminal	:
Called	

		Final state	×	×	×	DS 7.1	×	DS 7.1	×	1.7 SQ	×	T'L SQ	×
	7.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)		SP-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	<u> </u>	S-P-EXPT S-P-EXPT IND (FAIL)	<u>-</u>	S-P-EXPT S-P-EXPT IND (FAIL)
	DS 7.1	Protocol action										<u> </u>	
	_	Timer											
		Final state	×	×	×	DS 1.1	×	DS 7.1	×	DS 7.1	×	DS 7.1	×
	DS 6.1	Service primitive	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-CAPAB DATA CONF	S-P-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
	DS	Protocol action											
4 Document send		Timer	STOP 12	STOP T2	STOP T2	STOP T2	STOP 7.2	STOP T2	12 STOP	STOP 12	STOP T2	STOP T2	570P
4 Docur		Final state	×	x	×	DS 7.1 x	×	DS 1.1	×	DS 7.1	×	DS 7.1 x	×
	DS 5.1	Service	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SACT END CONF	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FALL)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3) S-P.EXPT IND (FAIL)	S-P-EXPT
	SQ	Protocol action											
		Timer	STOP T2	STOP 12	STOP 12	12 T2	STOP T2	12 DP	STOP T2	210P	STOP T2	STOP T2	12 12
		Final state	×	×	×	DS 7.1	*	DS 7.1	×	1.7 SQ	×	L.7 SQ	×
	DS 4.1	Service	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SP-EXPT IND (TAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT ND (ERR) 3) S-P-EXPT S-P-EXPT ND (FAIL)	SP-EXPT IND (FAIL)	S-P.EXPT IND (ERR) 3) S-P.EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
	DS	Protocol action									· •		
		Timer	STOP T2	STOP T2	T20P	STOP 72	STOP T2	112 112	STOP 12	TTOP CL	STOP T2	STOP T2	STOP T12
State		Service							· ···· · · · · · · · · ·				-
ļ	/	Protocol	R-CSUI	R-CSUI/ CDC (C)	R-CSUI/ CDCL	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUI/ RDEP (K) A K=R	R-CSUI	R-RSUI/ RDDP	R-CSUI/	R-RSUI/ RDRP	R-CSUI/ CDUI
;;	Event	Local event									<u> </u>		

	T'L SCI	Final Timer Protocol Service Final state action primitive state	DS 7.1 DS 7.1	x SPEXPT X [FAIL] X (FAIL)	DS 7.1 DS 7.1	DS 7.1 DS 7.1 X DS 7.1 DS 7.1	DS 7.1 DS 7.1	L2 SG	×	x SPEXFT X (FAIL) X			(
, id	DS 6.1	Protocol Service action primitive	SPECT SPECT (ERR) 3) (ERR) 3) SPECT (FAL)		ND ND IND IND IND IND IND IND IND IND IN	ND ND (GRR) 3) (GRR) 3) (FALL)	RP-EXPT ND- CERR) 3) SP-EXPT ND- (FALL)	S-F-EXPT ND (ERR) 3)	S-P-EXPT ND (FAIL)	S-P-EXPT S-P-EXPT (FAIL) (FAIL)	 	SPEXPT SPEXPT ND (FAIL)	
4 Document send	DS 5.1		SPEXPT DS 7.1 ND DS 7.1 RRN 3) SPEXPT DS 7.1 SPEXPT DS 7.1 Involution T2 Involution X	SPEXFT SPECT ND T2 FOP T2 FOP T2 FOP T2	SSYNC MIN CONF DS 5.1 T2 R=R+1 T2	SPEKFT DS 7.1 (ERR) 3) DS 7.1 SPEKPT DS 7.1 T2 T2 T2 T2 T2 T2 T2 T2 T2 T2	SUEXPT DS 7.1 STOP REQ 3) SPEXPT x 172 SPEXPT x 172 (FALL)	SPEXFT SPEXFT IND (ERR) 3) STOP STOP	SPEXPT SPEXPT 12 IND x (FAIL)	SPEXFT STOP ND x STOP (FAIL) T2	 	SP-EXPT SP-EXPT STOP T2 FAIL)	
		Final Timer Protocol action	DS 7.1 STOP 122	x STOP	bS 2.1	DS 2.1 STOP 172 123 172 172	DS 7.1 STOP X T2	DS 7.1		x stop		x stop	
	DS 4.1	Timer Protocol Service action primitive	SPEXT SPEXT SPEXT SPEXT SPEXT SPEXT SPEXT SPECT		SSYNC SSYNC MIN CONF	SSYNC SSYNC MIN CONF RER41	SPEEXPT SPEEXP	SP-EXPT S-EXPT IND (ERR) 3)	SP-EXPT SP-EXPT IND (FAIL)	SPECKT	 	Free Control C	
	State		R.RSUI STOP 570 T2	R-CSUI/ R-CSUI/ T2	R-RSUI/ RDFBR(K) RSPR AS>R	R-RSU/ RDPBP (K) AK=R AS=R+1 T2	R.R.SUI/ R.DPBN T2	ANY OTHER ICOMMAND IOR RESP OR WRONG	FORMAT T2 IN CON. NECTION WITH RSUI	ANV OTHER OTHER OR RESUC	j 	STOP	
Called terminal	Event	Local event									EXPIRY OF T1	EXPIRY OF T2	EXPIRY

		Final state	Î	(Î	Î						14.1
Wait	5.1	Service primitive											<u> </u>
M.	5.	Protocol action											S-CSA
		Timer)										START T3
		Final state	(Î		Î						14.1
	1.9 SQ	Service primitive											
	SQ	Protocol action											s-csA
4 Document send		Timer											START [
4 Docun		Final state					 		 				14.1
	8.1	Service primitive								 -			<u>-</u>
	DS 8.1	Protocol action											s-csA
		Timer											START 1
State	/	Service primitive	S-CON RESP POS	S-CON RESP NEG	S-REL RESP	S-CTRL GIVE REQ	S-CTRL GIVE RESP	S-SYNC MIN REQ (I)	S-SYNC S-SYNC MIN RESP (K) A K=Q	S-U-EXPT REQ	SACT END REQ (I)	SACT END RESP (K)	S-U-ABT REQ
į		Protocol event			· · · · · · · · · · · · · · · · · · ·								
ļ	Event	Local										·	

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DS 8.1 Protocol Se action pri	4 Document send 8.1 8.1 8.1 7 Inner 9 primitive 7 Inner	Protoco action	DS 9.1 I Service Final primitive state	al	Wait 5.1 Protocol Service action primitive	Final
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		Final state	0.1	×		×	×	×	×	×	7.1	×	- - ×	DR 1.1
Wait	_	Service primitive	S-P-ABT IND	S-P-EXPT	(FAIL)	SP-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SCTRL GIVE
M	5.1	Protocol action											<u> </u>	<u> </u>
		Timer	STOP 12	STOP	13	STOP T2	STOP T2	STOP T2	STOP 172	STOP 12	STOP T2	STOP T2	STOP T2	RESTART T2
		Final state	0.1	DS 9.1	×	×	×	×	×	×	T'L			·×
	1.0	Service primitive	S.P. ABT LIND		S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND
	1.9 2U	Protocol action				••• ••• ••• ••• •								
ent send		Timer	STOP T2		STOP T2	stor T2	STOP T2	STOP T2	STOP T2	STOP 12	STOP 12	T2	stor T2	STOP T2
4 Document send		Final state	0.1	DS 8.1	×	×	×	×	×	×	1.1	×	*	×
		Service primitive	S-P-ABT		S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-ABT UND	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND
	DS 8.1	Protocol action		- <u>-</u> .										
		Timer	STOP T2		STOP T2	STOP T2	STOP 12	STOP T2	stop 12	1120F	STOP T2	T20P	stop	STOP T2
State		Service primitive	T-DISCON IND	T-FXPT	Q				·		· · · · · · · · · · · · · · · · · · ·			
		Protocol cvent				R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP
	Event	Local												

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		Final state	×	×	×	×	×	×	×	×	×	×	×
Wait	5.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-F-F-F-F-F-F-F-F-F-F-F-F-F-F-F-F-F-F-	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
Ŵ	5.	Protocol action											
 		Timer	STOP 12	STOP 72	STOP 12	STOP T2	STOP T2	STOP 12	STOP 12	STOP 12	T12	STOP 72	STOP 12
		Final state	×	×	x .	1.9 SQ	×	DS 9.1	×	DS 1.1	×	D.9.1	×
	DS 9.1	Service primitive	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)		S-P-EXPT S-EXPT IND (FAIL)	S-ACT DCAD CONF	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)
	DS	Protocol action											
4 Document send		Timer	STOP 12	12 LT2	STOP T2		STOP T2		12 TOP	STOP 12	12 12		STOP 12
4 Docun		Final state	×	×	 ×	DS 8.1	×	DS 8.1	×	DS 8.1	×	DS 1.1	×
	DS 8.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		S.P.EXPT IND (FAIL)		SP-EXPT IND (FAIL)		SP-EXPT IND (FAIL)	S.ACT INT CONF	S-P-EXPT IND (FAIL)
	SQ	Protocol action											
		Timer	STOP T2	STOP T2	STOP T2		STOP T2		STOP 12		STOP T2	STOP T2	510P
State		Service primitive											
lani		Protocol event	R-CSUI/ CDS	R-CSUI/ CDC (C)	R-CSUI/	R-RSUI/ RDCLP	R-CSUI/ CDE (I)	R-RSUI/ RDEP (K)	R-CSUI/ CDD	R-RSUI/ RDDP	R-CSUI/ CDR	R-RSUI/ RDRP	R-CSUI/ CDUI
Called terminal	Event	Local event											

		Final state	×	×	×	*	×	×		×	
Wait	5.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND (FAIL)	
W	5.	Protocol action									
		Timer	STOP T2	srop T2	stor T2	STOP 12	STOP T2	STOP T2		STOP 12	
		Final state	DS 9.1	DS 9.1	DS 9.1	DS 9.1	D.9.2.1	×		×	
	DS 9.1	Service primitive						SP-EXPT IND (FAIL)		SP-EXPT	
	Sa	Protocol action									
4 Document send		Timer						STOP 12		STOP 12	
4 Docun		Final state	DS 8.1	×	DS 8.1	DS 8.1	DS 8.1	×	Î		
	8.1	Service primitive		S-P-EXPT S-P-EXPT IND (FAIL)			·	S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	
	DS 8.1	Protocol action	** 								
		Timer		STOP 12		— — — — — — — 		STOP 12		STOP	
State	/	Service primitive		— — — — — — 			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
/	/	Protocol event	R-RSUI/ RDGR	R-CSUI/ CDPB (1)	R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COOCUMENT OR RESP OR RAD IN CON- NECTION WITH NECTION	ANY OTHER OC MMAND OR RESP FORMAT			
/	Event	Local event					, ,		EXPIRY OF TI	EXPIRY OF T2	EXPIRY OF T3

Timer Protocol Service Final Time	Timer Protocol Service	Final Times The state of the st
) () () () () () () () () () (
) (
DR 7.1 RESTART SRSUJ DR 7.1 RUPBN DR 7.1		
DR 2.1 TI START START STAUL COUNTER. DR 3.1 DR 2.1 TI START STAUL COUNTER. DR 3.1 DR 7.1 TI START STAUL DR 7.1 DR 7.1 TI START STAUL DR 7.1 DR 7.1 TI START STAUL DR 7.1 DR 7.1 TI START STAUL COUNTER. DR 7.1		
DR 2.1 TI STRAT SRSUI/ COUNTER: DR 3.1 DR 7.1 DR 7.1 TI STRUI/ COUNTER: DR 3.1 DR 7.1 DR 7.1 TI STRUI/ TI STRUI/ DR 7.1 DR 7.1 DR 7.1 DR 7.1 TI		
DR 2.1 RESTART SRSUI/ TI TI RESTART SUPPLIC COUNTER: DR 3.1 DR 7.1 RESTART SUPPLIC DE 7.1 DR 7.1 TI RESTART SRSUI/ TI COUNTER: DR 7.1 DR 7.1 DR 7.1	S-RSUH COUNTER:	
RESTART SRSUI/ DR 7.1 T1 RDPBN DR 7.1 (((-	
	RESTART S.RSUI/ TI	
14.1 START SCSA 14.1 T3ART	START S-CSA	

Called terminal																	
	State								2 Document receive	nt receive							
Event			DR	DR 1.1			DR 2.1	2.1			DR	DR 3.1			DR 4.1	4.1	
Local Protocol event event	Prin Ser	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
	S-U-ABT RESP				 _			·	Î								
	SACT BEG				 												
	SACT BEG (CONT) REQ (C)												 				(
	S-DATA REQ																
	S-ACT BCAD REQ								<u> </u>				 				
	SACT BCAD RESP																(
	SACT SACT								 								
	S-ACT INT RESP		— — — - 		 							·					
	SCAPAB DATA REQ											·					
	SCAPAB DATA RESP			÷		<u></u>			<u>+</u>	<u></u>	÷	<u> </u>				÷	
	N LUDON									<u>+</u> -	÷	<u>÷</u>			÷		

	;													
		Final state	0.1	DR 4.1	×	×	×	×	×	×	7.1	×	×	×
	4.1	Service	S-P-ABT IND	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-ABORT IND	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
	DR 4.1	Protocol action												
		Timer												
		Final state	0.1	DR 3.1	×	×	×	×	×	×	1.7	×	×	×
	3.1	Service primitive	SP-ABT	SP-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABORT IND	S-P.EXPT S-P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
	DR 3.1	Protocol action												
2 Document receive		Timer	STOP		TI	aors TT	STOP T1	STOP	TI	AOTS TOP	STOP TI	and the second s	TIOP	TI
2 Docum		Final state	0.1	DR 2.1	×	×	×	×	*	×	172	×	×	
	DR 2.1	Service primitive	S-P-ABT IND	SP-EXPT IND (ERR) 3)	SP.EXPT IND (FALL)	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABORT IND	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXP
	DR	Protocol action										 		
		Timer	TTOP		STOP	TIOP	STOP	STOP T1	TIOP	STOP	STOP T1	TI	STOP	TI
		Final state	0.1	DR 1.1	×	×	×	×	6.1	×	1.1	×		× .
	DR 1.1	Service primitive	SP-ABT IND	SP-EXPT ND (EBR) 3)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SREL	S-P-EXPT S-P-EXPT IND (FAIL)	S-ABORT IND	SP-EXPT IND (FAIL)	S-CTRL GIVE IND	S-P-EXPT IND (FAIL)
	DR	Protocol action												
		Timer	STOP T1		STOP	STOP T1	stop	STOP	STOP T1	STOP	STOP T1	TIOP	aoti	STOP
State		Service primitive	T-DISCON	T-EXPT	QNI									
	 	Protocol event				R-CSS	R-RSSP	R-RSSN	R•CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP
//	Event	Local event												•

Called terminal

			_		_					1					1	ł .		
		Final state	DR 7.1	×	DR 7.1	×	DR 7.1	×	×	DR 7.1	×	×	DR 9.1	×	DR 8.1	×	DR 7.1	×
	DR 4.1	Service primitive	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FALL)	S.P.EXPT IND (FAIL)	SPEXFT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-ACT DCAD IND	S-P-EXPT S-P-EXPT IND (FAIL)	SACT INT IND	SP-EXPT SP-EXPT IND (FAIL)	S-PEXPT IND (ERR) 3)	SP-EXPT IND (FAIL)
	DR	Protocol action	S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR			S-RSUI/ RDGR							SRSUI/ RDGR	
		Timer	START T1		START T1		START T1			START T1							START T1	
		Final state	DR 7.1	×	DR 7.1	×	DR 7.1	×	×	1 2 44	TOMA	×	DR 9.1	×	DR 8.1	×	DR 3.1	
	DR 3.1	Service primitive	SP-EXPT IND (ERR) 3)	S.P.EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ACT	END IND	S-P-EXPT IND (FAIL)	SACT DCAD IND	S-P-EXPT S-P-EXPT IND (FAIL)	SACT SACT INT IND	S-P-EXPT S-P-EXPT IND (FAIL)	SDATA	
	DR	Protocol action	S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
ent receive		Timer	RESTART T1	STOP T1	RESTART T1	STOP T1	ART	STOP T1	TI OP	STOP	F	TI TI	and IT	TIOP	TIOP	TTOP	RESTART	- -
2 Document receive		Final state	DR 7.1	×	DR 7.1	×	DR 7.1	×	×	DR 7.1	×	×	DR 9.1	×	DR 8.1	×	DR 3.1	
	DR 2.1	Service primitive	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SACT DCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	S-P-EXPT S-P-EXPT IND (FAIL)	SDATA	
	DR	Protocol action	S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR			S-RSUI/ RDGR								
		Timer	RESTART T1	STOP T1	RESTART T1	STOP	RESTART T1	STOP T1	STOP T1	RESTART T1	stop T1	STOP T1	STOP	STOP	STOP	STOP	RESTART	- -
		Final state		177 XI	I .	DK 2.1		1.0 VU	×	DR 7.1	×	×	DR 9.1	×	DR 8.1	×	DR 7.1	×
	1.1	Service primitive	SACT BEG	I=Q=I	S-ACT BEG	P-Q-C+1	SCAPAB		S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S.ACT DCAD IND	S-P-EXPT IND (FAIL)	S-ACT INT IND	S-P-EXPT S-F-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)
	DR	Protocol action								S-RSUI/ RDGR					,		S-RSUI/ RDGR	
		Timer	RESTART	F	RESTART	F	STOP		aors	RESTART	STOP T1	STOP	STOP	STOP T1	STOP T1	STOP	RESTART	TI
State	/	Service																
	 	Protocol event	R-CSUI/	CDS	R-CSUI/	CDC (C)	R-CSUI/	CDCT	R-RSUI/ RDCLP	R-CSU/	(W-I) A [=P	R-RSUI/ RDEP (K)	R-CSUI/	RDDP	R-CSUI/	R-RSUI/ RDRP	R-CSUI/	
į	Event	Local																

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		Final state	×	DR 4.1	DR 7.1	DR 4.1 3)	DR 7.1	DR 4.1	DR 7.1	×	×	DR 7.1	×
	DR 4.1	Service	S-P-EXPT IND (FAIL)	SSYNC MIN IND 5)	SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	SSYNC MIN IND 5)	SPEXPT ND (ERR) 3) SPEXPT ND (FAIL) (FAIL)	S-SYNC MIN IND 5)	S-P-EXPT S-P-EXPT IND S-P-EXPT IND IND (FAIL)	S.P.EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)
	DR	Protocol action			S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR			SRSUI/ RDGR	
		Timer			START T1		START T1		START T1 T1			START T1	
		Final state	×		DK 2.1			DR 2.1	DR 7.1	*	×	DR 7.1	
	DR 3.1	Service primitive	S-P-EXPT IND (FAIL)	SSYNC MIN IND	COUNTER:	SYNC MIN IND	COUNTER:	SYNC MIN IND 6)	SP-EXPT SP-EXPT IND (ERR) 3) SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT IND (ERR) 3)	SP-EXPT IND (FAIL)
	DR	Protocol							S-RSUI/ RDGR			S-RSUI/ RDGR	
2 Document receive		Timer	STOP T1	RESTART	E .	STOP	E	RESTART TI	RESTART T1 STOP T1	STOP	TI	RESTART TI	aotr I aotr
2 Docum		Final state	×	DR 2.1 3)	DR 7.1	DR 2.1 3)	DR 7.1	DR 2.1 3)	DR 7.1	×		DR 7.1	×
	DR 2.1	Service primitive	S-P-EXPT IND (FAIL)	S-SYNC MIN IND 5)	SP-EXPT IND (ERR) 3) (ERR) 3) SP-EXPT IND (FAIL)	SSYNC MIN IND 5)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	SSYNC MIN IND 5)	SP-EXPT S-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT SP-EXPT IND (FAIL)
	DR	Protocol action			S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR	~		S-RSUI/ RDGR	
		Timer	STOP T1	RESTART T1	RESTART T1 STOP T1	RESTART	RESTART T1 STOP T1	RESTART Ti	RESTART T1 STOP T1	STOP TI	STOP	RESTART	TI
		Final state	×	DR 7.1	×	DR 7.1	×	DR 7.1	×	×	×	DR 7.1	×
	DR 1.1	Service primitive	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)
	DF	Protocol action		S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR				S-RSUI/ RDGR	
		Timer	STOP T1	RESTART T1	STOP	RESTART T1	STOP T1	RESTART	TOP	STOP T1	STOP T1	RESTART T1	STOP T1 1
State	///////////////////////////////////////	Service primitive									-		
/	/	Protocol event	R-RSUI/ RDGR	R-CSUI/ CDPB (I)	A (P-0)< (W-1) A I=P	R-CSUI/ CDPB (I)	A (P-Q)= (W-I) A j=P	R-CSUI/	∧1≠P	R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COMMAND OR RESP	FORMAT FORMAT IN CON- NECTION WITH CSUI
 	Event	Local event											

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			Final state	×		<u> </u>	<u> </u> _
		DR 4.1	Service primitive	S-P-EXPT S-P-EXPT IND (FAIL)			
		DF	Protocol action				
			Timer				
			Final state	×	×		
		3.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)		
		DR 3.1	Protocol action				
	2 Document receive		Timer	STOP TT	STOP T1		
	2 Docum		Final state	×	×		
		2.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)		
		DR 2,1	Protocol action				
			Timer	STOP TI	STOP T1		
			Final state	×	×		
		E	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)		
		DR 1.1	Protocol action				
			Timer	TIOP	STOP T1		
	State	/	Service primitive				
Ial	ļ	i i	Protocol	ANY OTHER COMMAND OR RESP OR WRONG FORMAT		<u> </u>	· • • • • • • • • • • • • • • • • • • •
Called terminal	 	Event	Local		EXPIRY OF TI	EXPIRY OF T2	EXPIRY OF T3

DR 5.1 DR 5.1 Protocol Service Final Timer	rvice Final				DR Protocol	DR 6.1 DI Service	2 Docum Final	2 Document receive	DR Protocol	DR 7.1 of Service primitive	Final state	Timer	D1 Protocol action	DR 8.1 Service	Final state
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SRSUI(RDPBP (K) Q=Q+1 RDPBP (K)	i	4	 I:												
SRSUI/ RDPBN DR 7.1		H H									Î				
			 -							~					Î
S-RSUI/ RDEP		- H													
S-CSA 14.1		14		START START	scsA		14.1	START T3	s-csa		14.1	START T3	S-CSA		14.1

		1					<u> </u>						
		Final state								DR 1.1			
	DR 8.1	Service	=	 									
	DR	Protocol action								S-RSUI/ RDRP			
		Timer)							START T1			
		Final state			 		 				 	 	
	DR 7.1	Service primitive											<u> </u>
	DR	Protocol action											+
2 Document receive		Timer											<u></u>]
2 Docun		Final state				 		<u> </u>			 	DR 1.1	<u>+</u>
	DR 6.1	Service primitive											<u></u>
	DR	Protocol action										s-rsul/ RDCLP	
		Timer										START T1	
		Final state	Î								 		
	DR 5.1	Service primitive											
	ЪR	Protocol action			~							<u> </u>	
		Timer											
State	/	Service	S-U-ABT RESP	S-ACT BEG (START) REQ	SACT BEG (CONT) REQ (C)	SDATA REQ	S-ACT DCAD REQ	SACT DCAD RESP	S-ACT INT REQ	SACT INT RESP	SCAPAB DATA REQ	S-CAPAB DATA RESP	T-CON IND
	/	Protocol event									<u></u>		
/	Event	Local								<u> </u>			

		Final state	0.1	×	×	×	×	×	×	L.T	×	×	×
	8.1	Service primitive	S-P-ABT	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DR 8.1	Protocol action				— — — — — — — — — 						 	
		Timer									 		
		Final state	0.1	×		×	×	×	×	1.	×	×	×
	7.1	Service primitive	S-P-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT S-ABT IND	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SPLEXPT ND (FAIL)
	DR 7.1	Protocol action	·										
ant receive		Timer	STOP	STOP 1	STOP 11	STOP	STOP	STOP T1	STOP	TIOP	STOP	STOP 1	STOP T1
2 Document receive		Final state	0.1	DR 6.1	× ×	×	×	×	×	1.1	×	×	×
	6.1	Service primitive	S-P-ABT	S-P-EXPT IND (ERR) 3) S-P-EXPT	FAIL) S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SABT SABT IND	SP-EXPT IND (l'AIL)	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
	DR 6.1	Protocol action											
		Timer				<u> </u>		<u> </u>	<u> </u>				
		Final state	0.1	DR 5.1	× ×	×		×		1.1	×	×	
	5.1	Service primitive	S-P-ABT IND	SP-EXPT IND (ERR) 3) SP-EXPT	(FAIL) (FAIL) S-P-EXPT (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SABT SABT	S-P-EXPT S-P-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)
	DR 5.1	Protocol action									· · · · · · · · · · · · · · · · · · ·		
		Timer -				 	<u>-</u>		- <u>-</u>	· · · · · · · · · · · · · · · · · · ·			·
State	/	Service primitive	T-DISCON	T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-		<u> </u>	<u> </u>	<u> </u>	<u>-</u>	<u> </u>		÷	
	/	Protocol event			R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSCC	R-RSCCP
//	Event	Local		·	_ <u></u>	÷		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u></u>

		te al										1	
		Final state	×	×	×	×	×	×	×	×	×	×	×
	DR 8.1	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXET S-P-EXET IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
	DR	Protocol action				/							
		Timer									— =,,, _ } ! ! ! !		
		Final state	DR 7.1	DR 7.1	DR 7.1	*	DR 7.1	×	DR 9.1	×	DR 8.1	×	DR 7.1
	1.1	Service primitive				S-P-EXPT IND (FAIL)		S-P-EXPT IND (FAIL)	S-ACT DCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	SP-EXPT	
	DR 7.1	Protocol action	— — — — — — – 										<u>+</u>
nt receive		Timer	— — —			STOP T1		TI	STOP T1	STOP TI	TIOP	STOP	•
2 Document receive		Final state	DR 7.1	DR 7.1	DR 7.1	×	DR 7.1	×	DR 7.1	*	DR 8.1	×	DR 7.1
	6.1	Service primitive	S-P-UXPT ND (ERR) 3) S-P-EXPT ND (FAIL)	SPLEXPT IND (ERR) 3) SPLEXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT IND (FAIL)	S-P-EXPT ND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FALL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-ACT INT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)
	DR 6.1	-	S-RSUI/ RDGR	S-RSUI/ RDGR	S-RSUI/ RDGR		S-RSUI/ RDGR		S-RSUI/ RDGR				s RSUI/
	_	Timer	START T1	START T1	START T1 T1		START T1 T1		START TI				START T1 T1
		Final state	DR 7.1	DR 7.1	DR 7.1	×	DR 7.1 x	×	DR 9.1	×	DR 8.1	×	DR 7.1
	DR 5.1	Service primitive	SP-EXPT IND SP-EXPT SP-EXPT IND (FAIL)	SPEXFT IND (ERR) 3) SPEXFT IND (FAIL)	S-P-EXPT IND (ERR) 3) S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT ND S-P-EXPT S-P-EXPT S-P-EXPT ND FAIL)	S-P-EXPT IND (FAIL)	S-ACT DCAD IND	S-P-EXPT IND (FAIL)	SACT INT IND	S-P-EXPT IND (FAIL)	SPEXPT IND (ERR) 3) SPEXPT (FAIL) (FAIL)
	βΩ	Protocol action	S-RSUI/ RDGR	S-RSUI/ RDGR	S-RSUI/ RDGR		S-RSUI/ RDGR			- <u> </u>			S-RSUI/ RDGR
		Timer	START TI	START T1	START T1		START T1 T1						TI ART
State	/	Service primitive											
;	;	Protocol event	R-CSUI/ CDS	R-CSUI CDC (C)	CDCL CDCL	R-RSUI/	R-CSUI/ CDE (1)	R-RSUI/ RDEP (K)	R-CSUI/	R-RSUI/ RDDP	cDR	RDRP	cour cour
	Event	Local event						•					

		Final state	×	,	<	×	×	*		х	Î		(
	8.1	Service primitive	SP-EXPT IND (FAIL)	SP-EXPT	(FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND	(FAIL)	SP-EXPT IND (FAIL)			
	DR 8.1	Protocol action											
		Timer											
		Final state	×			×	×			×	×		Î
	DR 7.1	Service primitive	S-P-EXPT IND (FAIL)			S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)			S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)		
	DR	Protocol											
int receive		Timer	STOP	 		STOP T1	TIOP			TI	STOP T1		
2 Document receive		Final state	×	DR 7.1	×	×	×	DR 7.1	ж	×			
	DR 6.1	Service primitive	S-P-EXPT S-P-EXPT IND (F-AIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (PAIL)	S-P-EXPT IND (FAIL)			
	Da	Protocol action		S-RSUI/ RDGR			 	S-RSUI/ RDGR					
		Timer	 	START T1		1 		START T1 T1					
		Final state	×		DR 7.1	×	×	DR 7.1	×				
	DR 5.1	Service primitive	S-P-EXPT IND (FAIL)		S-P-EXPT S-P-EXPT IND S-P-EXPT IND FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (ERR) 3)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	_ _		
	D	Protocol			S-RSUI/ RDGR			S-RSUI/ RDGR					
		Timer			START T1			START T1 T1					
Ctata)	Service											
		Protocol event	R-RSUI/ RDGR			R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COMMAND OR RESP	DICKWAT FORMAT IN CON- NECTION WITH CSUI	ANY OTHER COMMAND OR RESP OR WRONG FORMAT			
ļ	Event	Local event									EXPIRY OF T1	EXPIRY OF T2	EXPIRY OF T3

			2 Docum	2 Document receive			Wait	it			Wait	it			Wait	Ŀ!	
Event	State		DR 9.1	9.1			3.1				6.1				14.1	1	
Local Protocol event event	N in	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Sèrvice primitive	Final state	Timer	Protocol action	Service primitive	Final state	Timer	Protocol action	Service primitive	Final state
 	S-U-ABT RESP		~)			
i 	SACT BEG (START) REQ	·							 _								
	SACT BEG (CONT) (CONT) REQ (C)								 								
 	S-DATA REQ										·)			
	S-ACT DCAD REQ												· [ļ			
	SACT BCAD RESP	TI	S-RSUI/ RDDP	•	DR 1.1												(
	S-ACT INT REQ																
	S-ACT INT RESP)			(
	SCAPAB DATA REQ												Î)			
	SCAPAB DATA RESP																
_	T-CON IND				 [[ļ			Î

(continued)
TABLE H-2/T.62

Called terminal

// //	Event	Local event											
	/	Protocol event			R-CSS	R-RSSP	R-RSSN	R-CSE	R-RSEP	R-CSA	R-RSAP	R-CSOC	R-RSCCP
State	/	Service	T-DISCON IND	T-EXPT IND									
		Timer										·	
2 Docum	DR	Protocol action										-	
2 Document receive	R 9.1	Service primitive	SP-ABT	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	S-P-EXPT. IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
		Final state	0.1	×	×	×	×	×	×	Г.Г.	×	×	×
		Timer										~ _ ~	
ĥ		Protocol action											
Wait	3.1	Service primitive	SP-ABT	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)
		Final	0.1	×	×	×	×	×	×	1.7	×	×	×
		Timer										— — — — — — — — — — — — — — — — — — —	
W	9	Protocol action											
Wait	6.1	Service primitive	S-P-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-ABT IND	S-P-EXPT IND (FAIL)	S-P-EXPT S-F-EXPT IND (FAIL)	SP-EXPT IND (FAIL)
		Final state	0.1	×	×	×	×	×		7.1	× 1	×	×
		Timer	STOP T3								T3 TOP		
M	14	Protocol action											
Wait	14.1	Service primitive	S-P-ABT IND								SABT CONF CONF SABT CONF T.DISCON REQ		
		Final state	0.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	0.2 7) 0.1	14.1	14.1

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		Final state	14.1	14.1	14.1	I4.1	14.1	14.1	14.1	14.1	14,1	14.1	14.1
Wait	14.1	Service											
W.	14	Protocol action											
		Timer											
		Final state	×	×	×	×	×	×	×	×	×	×	×
it		Service primitive	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	SP-EXPT IND (FAIL)	SP-EXPT SP-EXPT ND
Wait	6.1	Protocol action											
		Timer								 	<u>-</u> 		
		Final state	×	×	×	×	×	×	×		×	×	
it		Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S.P.EXPT IND (FAIL)	S-P-EXPT S-EXPT IND (FAIL)	SP-EXPT SIND (FAIL)	SP-EXPT SP-EXPT IND (FAIL)	S-P-EXPT S-P-1000 (FAIL)	S-P-EXPT S-P-EXPT
Wait	3.1	Protocol action											
		Timer	<u></u>				1 1 1 1 1 1 1	<u> </u> ,,,,,,,,,,			<u>-</u>		<u> </u>
		Final state	×	×	×						<u> </u>	<u> </u>	
t receive	E	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT	S-P-EXPT S-D-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)
2 Document receive	DR 9.1	Protocol action			<u></u> 								
		Timer	<u> </u>	<u>-</u>		• • • • • • • • • • • • • • • • • • •	<u>-</u> 	<u> </u>	1 	1 1 1		 	/
State		Service primitive	<u>-</u>		•	 	<u> </u> 	1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u> 	/	<u>-</u>	! 	<u> </u>
	/	Protocol event	R-csul/	R-CSUI CDC (C)	R-csul/	RDCLP	R-CSUI/ CDE (I)	RDEP (K)	R-CSUI/	R-RSUI/ RDDP	R-CSUI	R-RSUI/ RDRP	R-CSUI/ CDUI
/	Event	Local event	<u> </u>	<u> </u>	<u>=</u>	- <u></u>		<u></u>	, <u>~</u> 0 ! !	<u> </u>			<u>~</u>

	!	1		1			!!		<u> </u>	1
		Final state	14.1	14.1	14.1	14.1	14.1			0.1
Wait	14.1	Service primitive								S-P-ABT IND T-DISCON REQ
M	7	Protocol action	·							
	 	Timer								STOP T3
		Final state	×	×	×	×	×			
lit	_	Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT S-P-EXPT (FAIL)	S-P-EXPT [ND (FAIL)			
Wait	6.1	Protocol action								
		Timer								
		Final state	x	×	×	×	×			
Wait		Service primitive	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)			
W	9	Protocol action								
		Timer								
		Final state	×	×	×	×	×	Î		
2 Document receive	DR 9.1	Service primitive	S.P.EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)	S-P-EXPT IND (FAIL)			
2 Docume	Д	Protocol action								
		Timer								
State		Service primitive			— • ! ! ! !				*=	— — — — — — — — — — — — — — — — — — —
	/	Protocal event	R-RSUI/ RDGR	R-CSUI/ CDPB (I)	R-RSUI/ RDPBP (K)	R-RSUI/ RDPBN	ANY OTHER DOCUMENT COMMAND OR WRONG FORMAT		 	
/	Event	Local event			— — — — — — — — — — — — — — — — — — —			EXPIRY OF T1	EXPIRY OF T2	EXPIRY OF T3

		Cu-tu J		W	ait	
Event		State			x	
Local event	Protocol event		Timer	Protocol action	Service primitive	Final state
		S-CON RESP POS	()
		S-CON RESP NEG	([)
		S-REL RESP	()
		S-CTRL GIVE REQ	([)
		S-CTRL GIVE RESP	 ()
	 	S-SYNC MIN REQ (I)	 ()
	 	S-SYNC MIN RESP (K)	 ()
		S-U-EXPT REQ	 	 	 	·)
	 	S-ACT END REQ (I))
	 	S-ACT END RESP (K))
	 	S-U-ABT REQ	 START T3 	 S-CSA		14.1
1	ł	1	I	I	1	i

		State		Wa	uit	
Event				>	د 	
Local event	Protocol event	Service primitive	Timer	Protocol action	Service primitive	Final state
		S-U-ABT RESP	(i i)
		S-ACT BEG (START) REQ	(====)
		S-ACT BEG (CONT) REQ (C)	()
	 	S-DATA REQ	()
	 	S-ACT DCAD REQ	()
	 	S-ACT DCAD RESP	()
	 	S-ACT INT REQ)
	 	S-ACT INT RESP	 ([)
	 	S-CAPAB DATA REQ	()
	 	S-CAPAB DATA RESP	 ()
	 	T-CON IND	 ()

		State	l 1	W	ait	
Event		· • • • • • •			x	
Local event	Protocol event	Service primitive	Timer	Protocol action	Service primitive	Fina state
	- 	T-DISCON IND	ł		S-P-ABT IND	0.1
	{ 	 T-EXP T IND	{ 	 		
	 R-CSS 	 	 			x
	 R-RSSP 	 	 	 		x
	 R-RS\$N] <u></u>	
	 R-CSE 	 	 			x
	 R-RSEP 	 	 			
	 R-CSA 	 	- 		S-ABT IND	7.1
	 R-RSAP 	! [[[x
	 R-CSCC] [] [¦ ━━ 		 . 	x
	 R-RSCCP	 				

Called	terminal
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	•••	State		W	ait	
Event			 		x	
Local event	Protocol	Service primitive	Timer	Protocol	Service	Final state
	R-CSUI/ CDS		4 	 		x
**************************************	R-CSUI/ CDC (C)				 	x
	R-CSUI/ CDCL					x
	R-RSUI/ RDCLP		 	 		x
	 R-CSU1/ CDE (1)	 -	 	 	 	x
	R-RSUI/ RDEP (K)			 		x
	R-CSU1/ CDD			 		x
	R-RSUI/ RDDP					x
	R-CSUI/ CDR					x
	R-RSUI/ RDRP					x
	R-CSUI/ CDUI					x
	1					ļ

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Called terminal

,

	•••	State		W	ait	
Event			·		x	
Local event		Service primitive	Timer		Service	Final state
	R-RSUI/ RDGR					x
,	R-CSUI/ CDPB (I)	·		- 		x
	R-RSUI/ RDPBP (K)		-	[[[]	 x
	R-RSUI/ RDPBN	 	 	 	 	 x
	ANY OTHER COMMAND OR RESP OR WRONG FORMAT	 	 	 		
EXPIRY OF T1			(; ;
EXPIRY DF T2	 	 	 ())
EXPIRY OF T3		{ 	 ()

ITU-T RECOMMENDATIONS SERIES Series A Organization of the work of the ITU-T Series B Means of expression: definitions, symbols, classification Series C General telecommunication statistics Series D General tariff principles Series E Overall network operation, telephone service, service operation and human factors Series F Non-telephone telecommunication services Series G Transmission systems and media, digital systems and networks Series H Audiovisual and multimedia systems Series I Integrated services digital network Series J Transmission of television, sound programme and other multimedia signals Series K Protection against interference Series L Construction, installation and protection of cables and other elements of outside plant Series M TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits Series N Maintenance: international sound programme and television transmission circuits Series O Specifications of measuring equipment Series P Telephone transmission quality, telephone installations, local line networks Series Q Switching and signalling Series R Telegraph transmission Series S Telegraph services terminal equipment Series T **Terminals for telematic services** Series U Telegraph switching Series V Data communication over the telephone network Series X Data networks and open system communications Series Y Global information infrastructure and Internet protocol aspects Series Z Languages and general software aspects for telecommunication systems