

9 List of system parameters

The description of timers in the following tables should be considered a brief summary. The precise details are found in clauses 5 and 6, which should be considered the definitive descriptions.

9.1 Timers in the network side

The timers specified in Table 9-1/B are maintained in the network side of the interface.

9.2 Timers in the user side

The timers specified in Table 9-2/B are maintained in the user side of the interface. Timers T305, T308 and T313 are mandatory for all user side implementations.

TABLE 9-1/B

Timers in the network side

Timer number	Default time-out value	State of call	Cause for start	Normal stop	At the first expiry	At the second expiry	Cross-reference
T301	Minimum 3 min	Call received	ALERT received	CONNECT received	Clear call	Timer is not restarted	(Note 2)
T302	10-15 s (Note 5)	Overlap sending	SETUP ACK sent Receipt of INFO, restarts T302	With sending complete indication, or network alert, or connect request received	Clear if call information determined to be definitely incomplete; else send CALL PROC	Timer is not restarted	Mandatory
T303	4 s (Note 1)	Call present	SETUP sent	ALERT, CONNECT CALL PROC or SETUP ACK received, REL COMPLETE received if SETUP sent on point-point data link	Retransmit SETUP; restart T303. If REL COMPLETE has been received, clear the call	Clear network connection. Enter call abort state	Mandatory
T304	20 s (provisional values)	Overlap receiving	SETUP ACK received. Sending of INFO restarts T304	Send INFO; receive CALL PROC, ALERT or CONNECT	Clear the call	Timer is not restarted	<u>Not implemented</u>
T305	30 s	Disconnect indication	DISC without progress indicator No. 8 sent	REL or DISC received	Network sends REL	Timer is not restarted	Mandatory
T306	30 s (Note 6)	Disconnect indication	DISC with progress indicator No. 8 sent	REL or DISC received	Stop the tone/announcement. Send REL	Timer is not restarted	Mandatory when inband tones/announcements are provided; see 5.4, 5.3.4.1, and Rec. I.300-Series
T307	3 min	Null	SUSPEND ACK sent	RES ACK sent	Clear the network connection. Release call identity	Timer is not restarted	Mandatory

TABLE 9-1/B (continued)

Timers in the network side

Timer number	Default time-out value	State of call	Cause for start	Normal stop	At the first expiry	At the second expiry	Cross-reference
T308	4 s (Note 1)	Release request	REL sent	REL COMPLETE or REL received	Retransmit REL and restart T308	Place B-channel in maintenance condition Release call reference (Note 9)	Mandatory
T309	90 s	Any stable state	Data link disconnection. Calls in stable states are not lost	Data link reconnected	Clear network connection. Release B-channel and call reference	Timer is not restarted	Implemented on point-to-point configuration
T310	10 s (Note 7)	Incoming Call Proceeding	CALL PROC received	ALERT, CONNECT or DISC received. If DISC, retain cause and continue timing	Clear call in accordance with 5.2.5.3	Timer is not restarted	Mandatory
T312	T303 + 2 s	Call Present, Call Abort, etc.	SETUP sent or resent on broadcast data link	Timeout	(Note 4)	Timer is not restarted	Mandatory
T314	4 s	Receiving segmented message	Message segment received	Last message segment received	Discard message	Timer is not restarted	Not currently used by Telecom.
T316	2 min	Restart request	RESTART sent	RESTART ACK received	RESTART may be retransmitted several times	RESTART may be retransmitted several times	Mandatory when 5.5 is implemented
T317	(Note 3)	Restart	RESTART received	Internal clearing of call references	Maintenance notification	Timer is not restarted	Mandatory when 5.5 is implemented

TABLE 9-1/B (end)

Timers in the network side

Timer number	Default time-out value	State of call	Cause for start	Normal stop	At the first expiry	At the second expiry	Cross-reference
T320	30 s (Note 8)	a) For B-channel access: active b) For D-channel access: null	a) For B-channel access: connection b) For D-channel access: DL-ESTABLISHMENT Confirmation or DL-ESTABLISHMENT indication received c) Last logical channel, cleared received	Call request packet received; or incoming call packet delivered; or DISC received; or for D-channel access DL-RELEASE indication received	a) For B-channel access: disconnect link layer and initiate clearing b) For D-channel access: send DL-RELEASE request	Timer is not restarted	Optional. See 6.3 Implemented
T321	30 s	Any call state	D-channel failure	Response to layer 3 message received	Send DL-ESTABLISHMENT request on both D-channels	Timer is not restarted	Mandatory when Annex F is implemented
T322	4 s	Any all state	STATUS ENQ sent	STATUS DISC REL or REL COMPLETE received	STATUS ENQ may be retransmitted several times	STATUS ENQ may be retransmitted several times	Mandatory when 5.8.10 is implemented

NOTES

- 1 This default value assumes the use of default values at layer 2 (i.e. $N200 + 1$] times T200). Whether these values should be modified when layer 2 default values are modified by an automatic negotiation procedure is for further study.
- 2 The network may already have applied an internal alerting supervision timing function; e.g. incorporated within call control. If such a function is known to be operating on the call, then timer T301 is not used.
- 3 The value of this timer is implementation dependent but should be less than the value of T316.
- 4 If in the call abort state, the call reference is released. Otherwise, no action is taken on expiry of timer T312.
- 5 The value of timer T302 may vary beyond these limits, e.g. as a result of called party number analysis.
- 6 The value of timer T306 may depend on the length of the announcement.
- 7 The value of timer T310 may be different in order to take into account the characteristics of a private network.
- 8 This value may vary by network-user agreement.
- 9 The restart procedures contained in 5.5 may be used on B-channels in the maintenance condition.

TABLE 9-2/B

Timers in the user side

Timer number	Default time-out value	State of call	Cause for start	Normal stop	At the first expiry	At the second expiry	Cross-reference
T301	Minimum 3 min.	Call Delivered	ALERT received	CONNECT received	Clear call	Timer is not restarted	Mandatory when Annex D is implemented (Note 3)
T302	15 s	Overlap receiving	SETUP ACK sent Restart when INFO received	INFO received with sending complete indication; or internal alerting; or internal connection; or a determination that sufficient information has been received	Clear if call information determined to be incomplete; else send CALL PROC	Timer is not restarted	Mandatory only if 5.2.4 is implemented <u>Not required</u>
T303	4 s (Note 1)	Call Initiated	SETUP sent	ALERT (Annex D), CONNECT (Annex D), SETUP ACK, CALL PROC or REL COMPLETE received	Retransmit SETUP; restart T303. If REL COMPLETE was received, clear the call (Annex D)	Clear internal connection. Send REL COMPLETE. Enter Null state	Mandatory when Annex D is implemented; otherwise optional
T304	30 s	Overlap Sending	INFO sent Restarted when INFO sent again	CALL PROC, ALERT, CONNECT or DISC received	DISC sent	Timer is not restarted	Optional
T305	30 s	Disconnect Request	DISC sent	REL or DISC received	REL sent	Timer Is not restarted	Mandatory
T308	4 s (Note 1)	Release request	REL sent	REL COMPLETE or REL received	Retransmit REL; and restart T308.	B-channel is placed in maintenance condition. Call reference released (Note 5)	Mandatory
T309	90 s	Any stable state	Data link disconnection. Calls in stable states are not lost	Data link reconnected	Clear internal connection. Release B-channel and call reference	Timer is not restarted	Optional

T310 (Note 4)	30-120 s	Outgoing Call Proceeding	CALL PROC received	ALERT, CONNECT, DISC, or PROGRESS received	Send DISC	Timer is not restarted	Mandatory when Annex D is implemented
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TABLE 9-2/B (end)

Timers in the user side

Timer number	Default time-out value	State of call	Cause for start	Normal stop	At the first expiry	At the second expiry	Cross-reference
T313	4 s (Note 1)	Connect request	CONNECT sent	CONNECT ACK received	Send DISC	Timer is not restarted	Mandatory
T314	4 s	Receiving Segmented Message	Message segment received	Last message segment received	Discard message	Timer is not restarted	Not currently required
T316	2 min	Restart Request	RESTART sent	RESTART ACK received	RESTART may be retransmitted several times	RESTART may be retransmitted several times	Mandatory when 5.5 is implemented
T317	(Note 2)	Restart	RESTART received	Internal clearing of call reference	Maintenance notification	Timer is not restarted	Mandatory when 5.5 is implemented
T318	4 s	Resume Request	RES sent	RES ACK or RES REJ received	Send RELEASE message with cause No. 102	Timer is not restarted	Mandatory when 5.6 is implemented
T319	4 s	Suspend Request	SUSPEND sent	SUSPEND ACK or SUSP REJ received	Enter Active state. Notify user application	Timer is not restarted	Mandatory when 5.6 is implemented
T321	30 s	Any call state	D-channel failure	Response to layer 3 message received	Send DL-ESTABLISHMENT request on both D-channels	Timer is not restarted	Mandatory when Annex F is implemented
T322	4 s	Any call state	STATUS ENQ sent	STATUS, DISC, REL, REL COMPLETE received	STATUS ENQ may be retransmitted several times	STATUS ENQ may be retransmitted several times	Mandatory when 5.8.10 is implemented

NOTES

- 1 This default value assumes the use of default values at layer 2, i.e. $[N200 + 1]$ times T200. Whether these values should be modified when layer 2 default values are modified by an automatic negotiation procedure is for further study.
- 2 The value of this timer is implementation dependent, but should be less than the value of T316.
- 3 The user may already have applied an internal alerting supervision timing function, e.g. incorporated within call control. If such a function is known to be operating on the call, then timer T301 is not used.
- 4 T310 is not started if progress indicator 1 or 2 has been delivered in the CALL PROCEEDING message or in a previous PROGRESS message.
- 5 The restart procedures contained in 5.5 may be used on B-channels in the maintenance conditions.

