ATIS-1000608.a.1992(R2012)

Integrated Services Digital Network (ISDN) – Signaling Specification for X.25 Packet-Switched Bearer Services for Digital Subscriber Signaling System Number 1 (DSS1): Terminal Initialization Procedures for Packet-Mode Data

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ATIS-1000608.a.1992(R2012), *Integrated Services Digital Network (ISDN) – Signaling Specification for X.25 Packet-Switched Bearer Service for Digital Subscriber Signaling System Number 1 (DSS1): Terminal Initialization Procedures for Packet-Mode Data*

Is an American National Standard developed by the **Signaling, Architecture, and Control (SAC)** Subcommittee under the **ATIS Packet Technologies and Systems Committee (PTSC)**.

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for telecommunications –

integrated services digital network (ISDN) –
signaling specification for X.25
packet-switched bearer service for
digital subscriber signaling
system number 1 (DSS1)
(terminal initialization procedures for packet-mode data)

Approved June 2, 1992   Secretariat: Exchange Carriers Standards Association

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Add the following listing to clause 2, Normative references:

ANSI T1.610-1990, *Telecommunications – Digital subscriber signaling system number 1 (DSS1) – Generic procedures for the control of ISDN supplementary services*

In table 2, add the following material on the INFORMATION message as the first listing under "Miscellaneous messages":

INFORMATION   5.2.12

In the table in 5.2.9, add the following material on the Endpoint identifier information element between the listings for the Display information element and the Information rate information element:

Endpoint identifier	6.5.30	n → u	O[18]	3–4

Add the following note to the table in 5.2.9:

[18] Included in the network-to-user direction if the network implements the terminal identification procedures in annex A of ANSI T1.608a-1992, and selects a specific terminal on the multipoint interface using network layer terminal addressing.

Insert the following text as the last subclause in 5.2:

5.2.12 INFORMATION

This message is sent by the user or the network at any time, in conjunction with the terminal initialization and information request procedures described in annex A and annex B of ANSI T1.608a-1992.

Message type: INFORMATION   Direction: Both

Significance: local

Information element	Reference	Direction	Type	Length
Protocol discriminator	6.2	both	M	1
Call reference	6.3[1]	both	M	1-*
Message type	6.4	both	M	1
Cause	6.5.11	n → u	O [2]	2-32
Information request	6.5.28	n → u	O [2), 3)]	3
Service profile identification	6.5.29	u → n	O [3]	3-32
Endpoint identifier	6.5.30	both	O [3]	3-4

[1] Terminal initialization only uses the *null call reference* value (also known as the *dummy call reference* value), consistent with the procedures in annex A of ANSI T1.608a-1992.

[2] Used in conjunction with the Information request procedures described in annex B of ANSI T1.608a-1992.

[3] Used in conjunction with the Terminal initialization procedures described in annex A of ANSI T1.608a-1992.

In the table that appears in Figure 6, delete the words "(Note 2)" from the listing for the INFORMATION message. This message type is now permissible for both case A and case B.

Make the following changes and additions to table 4 to incorporate the information elements for terminal identification and to align these listings with the corresponding table in ANSI T1.607-1990 (Table 21, Information element identifier coding):

a) Add the following listings to the table between the listings for the Keypad facility information element and the Information rate information element:

0110010	Information request	6.5.28	3	
0110100	Signal (note 7)	4.5.24 of T1.607	3	
0111010	Service profile identifier	6.5.29	32	
0111011	Endpoint identifier	6.5.30	4	

(NOTE – The last column of the table (Maximum number of occurrences) is blank for these new listings.)

b) Replace the listing for the Calling party number information element with the following listing:

1101100	Calling party number (notes 6, 10)	6.5.9	Note 4	2

c) Insert new Note 10 at end of table, to read as follows:

10 For case A, circuit-mode calls, this information element is included and possibly repeated in conjunction with called user subscription to the Calling Line Identification Presentation (CLIP) supplementary service.

d) See revised table 4 on next two pages. (Italics are used to highlight changes and additions.)

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Table 4 – Information element identifier coding

		Section reference	Maximum length (octets) (note 1)	Maximum number of occurrences (note 9)
8 7 6 5 4 3 2 1				
1 : :: - - - -	*Single octet information elements:*			
0 0 0 - - - -	reserved			
0 0 1 - - - -	Shift (note 2)	6.5.3 - 6.5.4	1	
1 0 1 - - - -	Repeat indicator (note 7)	6.5.23	1	
0 : : : : :: :	*Codeset 0 variable length information elements:*			
0 0 0 0 1 0 0	Bearer capability (notes 6, 8)	6.5.5	11	
0 0 0 1 0 0 0	Cause (note 2)	6.5.11	32	3
0 0 1 0 1 0 0	Call state	6.5.6	3	
0 0 1 1 0 0 0	Channel identification	6.5.12	Note 4	
0 0 0 1 1 0 0	Connected number (note 7)	4.5.13 of T1.607	2-19	
0 0 0 1 1 0 1	Connected subaddress (note 7)	4.5.14 of T1.607	2-23	
0 0 1 1 1 1 0	Progress indicator (note 6)	6.5.21	4	2
0 1 0 0 0 0 0	Network specific facilities (notes 2, 7)	4.5.19 of T1.607	Note 4	4
0 1 0 0 1 1 1	Notification indicator (note 7)	4.5.20 of T1.607	3	
0 1 0 1 0 0 0	Display	6.5.14	82	
0 1 0 1 1 0 0	Keypad facility (note 7)	4.5.17 of T1.607	34	
0 1 1 0 0 1 0	*Information request*	*6.5.28*	*3*	
0 1 1 0 1 0 0	*Signal (note 7)*	*4.5.24 of T1.607*	*3*	
0 1 1 1 0 1 0	*Service profile identifier*	*6.5.29*	*32*	
0 1 1 1 0 1 1	*Endpoint identifier*	*6.5.30*	*4*	
1 0 0 0 0 0 0	Information rate	6.5.16	6	
1 0 0 0 0 1 0	End-to-end transit delay	6.5.15	11	
1 0 0 0 0 1 1	Transit delay selection and indication	6.5.26	5	
1 0 0 0 1 0 0	Packet layer binary parameters	6.5.18	3	
1 0 0 0 1 0 1	Packet layer window size	6.5.19	4	
1 0 0 0 1 1 0	Packet size	6.5.20	4	
1 0 0 0 1 1 1	Closed User Group	6.5.13		
1 0 0 1 0 1 0	Reverse Charging Indication	6.5.25		
1 1 0 1 1 0 0	*Calling party number (notes 6,10)*	*6.5.9*	*Note 4*	*2*
1 1 0 1 1 0 1	Calling party subaddress	6.5.10	23	
1 1 1 0 0 0 0	Called party number	6.5.7	Note 4	
1 1 1 0 0 0 1	Called party subaddress	6.5.8	23	
1 1 1 1 0 0 0	Transit network selection (notes 2, 7)	4.5.25 of T1.607	Note 4	4
1 1 1 0 1 0 0	Redirecting number	6.5.22	Note 4	
1 1 1 1 0 0 1	Restart indicator	6.5.24	3	
1 1 1 1 1 0 0	Low layer compatibility (note 7)	6.5.17	12	
1 1 1 1 1 1 0	User-user	6.5.27	131	
1 1 1 1 1 1 1	Escape for extension (note 3)			
All other values are reserved (note 5)				

(continued)

Table 4 *(concluded)*

NOTES

1 The length limits described for the variable length information elements below take into account only the present CCITT standardized coding values.

2 This information element may be repeated.

3 This escape mechanism is limited to codesets 5, 6, and 7 (see 6.5.2). When the escape for extension is used, the information element identifier is contained in octet-group 3 and the content of the information element follows in the subsequent octets as shown in figure 8.

4 The maximum length is network dependent.

5 The reserved values with bits 5-8 coded "0000" are for future information elements for which comprehension by the receiver is required (see 5.8.7.1 of ANSI T1.607).

6 This information element may be repeated only in case A (access to PSPDN services).

7 This information element may be used only in case A (access to PSPDN services).

8 This information element may be repeated in conjunction with the repeat indicator information element.

9 Maximum number of occurrences allowed for variable length information elements.

10 For case A, circuit-mode calls, this information element is included and possibly repeated in conjunction with called user subscription to the Calling Line Identification Presentation (CLIP) supplementary service.

Replace the first paragraph of 6.5.9 with the following text:

The purpose of the Calling party number information element is to identify the origin of a call. The information element may occur two times in a message for case A, circuit-mode calls, in conjunction with called user subscription to the Calling Line Identification Presentation (CLIP) supplementary service.

Add the following new subclauses after 6.5.27:

6.5.28 Information request

The purpose of the Information request information element is to provide the capability for requesting additional information and for signaling completion of the information request (see annex B of ANSI T1.608a-1992).

See clause 3 of ANSI T1.610 (specifically, Section 8.2.5. of CCITT Recommendation Q.932) for the coding of the Information request information element.

6.5.29 Service profile identification

The purpose of the Service profile identification information element is to allow the user to initiate automatic assignment of the user service identifier and terminal identifier (see annex A of ANSI T1.608a-1992).

See clause 3 of ANSI T1.610 (specifically, Section 8.2.6 of CCITT Recommendation Q.932) for the coding of the Service profile identification information element.

6.5.30 Endpoint identifier

The purpose of the Endpoint identifier information element is

- to indicate the user service identifier and terminal identifier for the purpose of terminal identification;

- to indicate a specific terminal for the purpose of terminal selection.

(See annex A of ANSI T1.608a-1992 for the associated procedures.)

See clause 3 of ANSI T1.610 (specifically, Section 8.2.1 of CCITT Recommendation Q.932) for the coding of the Endpoint identifier information element.

Insert the following normative annexes as annexes A and B of this standard. Redesignate the current annexes A and B (both of which are informative) as annexes C and D, respectively.

Annex A
(normative)

User service profiles and terminal identification

This annex is identical to annex A of CCITT Recommendation Q.932, as referenced and modified by clause 3 of ANSI T1.610.

Annex B
(normative)

Information request procedures

This annex is identical to annex B of CCITT Recommendation Q.932, as referenced and modified by clause 3 of ANSI T1.610, with the following qualifications:

a) The material on the Overlap Sending and Call Delivered call states shall be applicable to case A access only;

b) The statement that "This capability is intended for use with the Keypad and Feature Key Management protocols" shall be applicable to case A access only;

c) The statement that "The network will restart timer T302...if the requested information is not complete" shall be applicable to case A access only;

d) The material on the Keypad facility and Called party number information elements shall be applicable to case A access only;

e) The material on "Normal procedures" for the call-associated case (e.g., use of a CALL PROCEEDING message, initiation of call clearing) shall be applicable to case A access only. The material on "Normal procedures" for the non-call-associated case shall be applicable to both case A access and case B access;

f) The condition that "...if the information received is incomplete upon expiry of timer T302" shall be applicable to case A access only;

g) The material on "Abnormal procedures" for the call-associated case (e.g., initiation of call clearing) shall be applicable to case A access only. The material on "Abnormal procedures" for the non-call-associated case shall be applicable to both case A access and case B access.

All other material in annex B, which is not covered by qualifications (a) – (g), shall be applicable to both case A access and case B access. In addition, all references to "CCITT Q.931" within annex B of CCITT Recommendation Q.932, i.e., references to "ANSI T1.607" based on the modifications in Section 3 of ANSI T1.610, should be extended to read "ANSI T1.607 and ANSI T1.608".

The following changes pertain to figures that appear in annex A of the main document, ANSI T1.608-1991. In future revisions, when the information in ANSI T1.608-1991 and ANSI T1.608a-1992 are merged, this annex will be redesignated as annex C and the prefix letters of these figures will change from A to C.

In figure A.1, replace Note 8 with the following:

8   Not shown in the diagram is the X.25 restart procedure performed after link setup.

In figure A.3, replace Note 6 with the following:

6   Not shown in the diagram is the X.25 restart procedure performed after link setup.

In figure A.5, replace the "Note 2" tag under the line representing the UA frame with a tag that reads "Notes 2,3". Add the following note to the list of notes at the bottom of the figure:

3   Not shown in the diagram is the X.25 restart procedure performed after link setup.

In figures A.6 and A.7, replace the "Note 2" tag under the line representing the UA frame with a tag that reads "Notes 2,3". Add the following note to the lists of notes at the bottom of each figure:

3   The X.25 Restart procedure should follow the link setup, if that link was not already established.