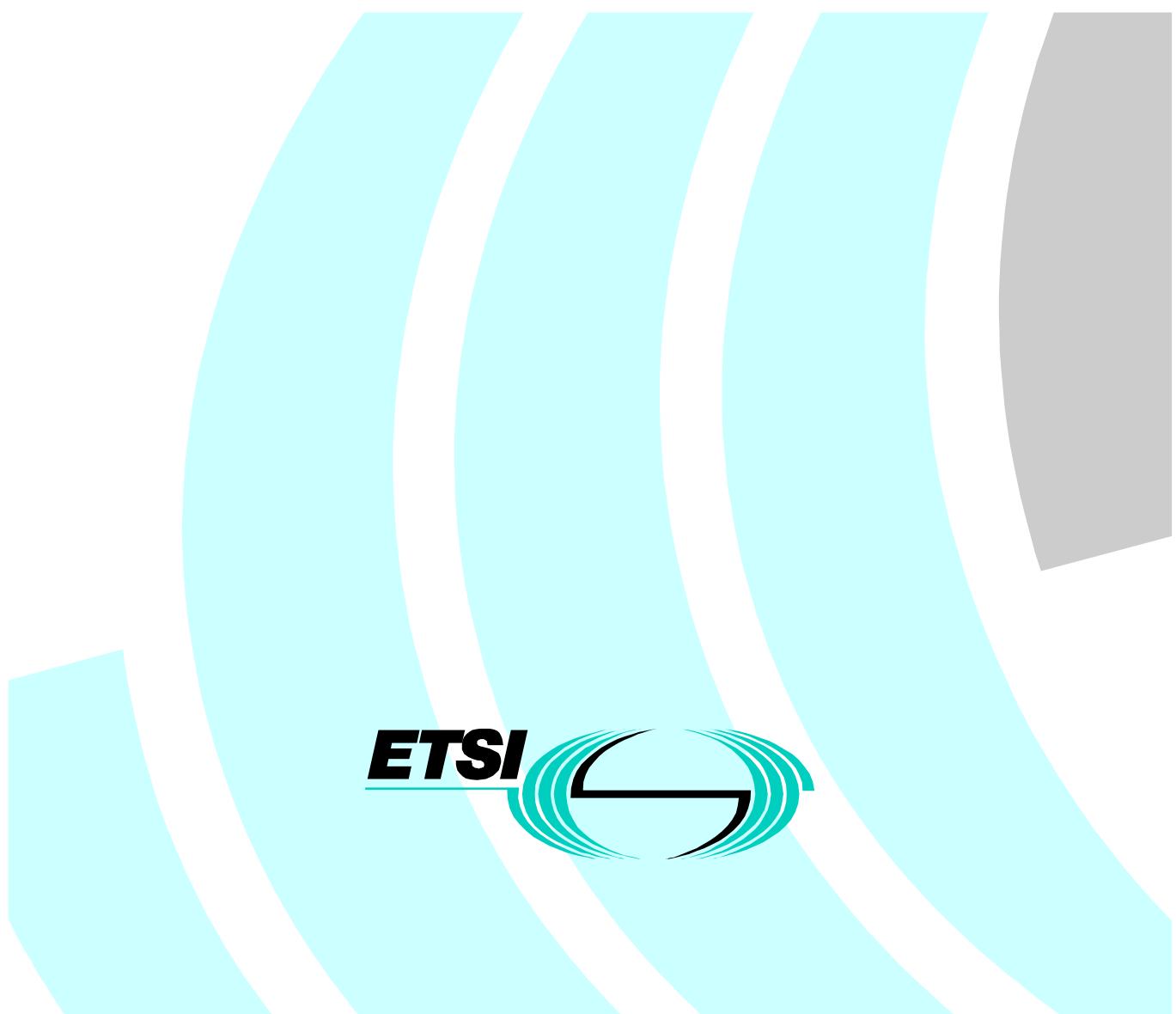# ETSI EG 201 189 V1.4.1 (2000-09)

ETSI Guide

**Integrated Services Digital Network (ISDN);
Digital Subscriber Signalling System No. one (DSS1) protocol;
Master list of codepoints and operation values**

Reference
REG/SPAN-05205

Keywords
ISDN, DSS1, coding, ASN.1

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Foreword

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An ETSI Guide (EG) is an ETSI deliverable, containing informative elements, adopted for publication by the ETSI membership.

1   Scope

The present document provides an overview of the codepoints used by the Digital Subscriber Signalling System No. one (DSS1) protocol for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators at the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [3]).

This overview is related to messages, information elements, protocol discriminator values, notification indicator values, progress indicator values, state values, operation and error values which are used for basic call, packet mode call, and supplementary services specified so far by ETSI. In addition, the operations and errors identified by an ETSI object identifier are included in a separate table.

All codepoints currently specified either by ETSI or ITU-T are shown in the following tables. When a codepoint is specified for use in networks conforming to an ETSI specification, a reference is included in the table to indicate the ETSI specification where the particular codepoint is defined.

Other codepoint values are indicated by the note: "Not applicable in networks conforming to ETSI specifications". This note applies to values, which are used in ITU-T Recommendations, but are not currently specified for use by ETSI in any ETSI specification.

> NOTE: A future version of the present document is expected to contain the operations and errors for the Remote Control service and possibly the Trunk Hunting supplementary service.

Clause 12 of the present document shows the relationship between messages and the information elements that each message may carry. Tables 14 to 17 only provide an overview of possible message contents but do not indicate which information element or combinations of information elements are present in a particular message for a specific purpose (e.g. basic call, a certain supplementary service).

2   References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1]   ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".

[2]   ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".

[3]   ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".

[4]   ITU-T Recommendation X.25 (1993): "Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit".

[5]   ETSI ETS 300 007 (1991): "Integrated Services Digital Network (ISDN); Support of packet-mode terminal equipment by an ISDN".

[6]   ETSI EN 300 058-1 (V1.2): "Integrated Services Digital Network (ISDN); Call Waiting (CW) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[7]   ETSI EN 300 097-1 (V1.2): "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[8]   ETSI EN 300 130-1 (V1.2): "Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[9]   ETSI EN 300 138-1 (V1.3): "Integrated Services Digital Network (ISDN); Closed User Group (CUG) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[10]   ETSI EN 300 141-1 (V1.2): "Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[11]   ETSI EN 300 182-1 (V1.3): "Integrated Services Digital Network (ISDN); Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[12]   ETSI EN 300 185-1 (V1.2): "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[13]   ETSI EN 300 188-1 (V1.2): "Integrated Services Digital Network (ISDN); Three-Party (3PTY) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[14]   ETSI EN 300 195-1 (V1.4): "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[15]   ETSI EN 300 196-1 (V1.2): "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[16]   ETSI EN 300 207-1 (V2.0): "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[17]   ETSI EN 300 210-1 (V1.2): "Integrated Services Digital Network (ISDN); Freephone (FPH) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[18]   ETSI EN 300 286-1 (V1.2): "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[19]   ETSI EN 300 324-1 (V2.1): "V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 1: V5.1 interface specification".

[20]   ETSI EN 300 347-1 (V2.2): "V interfaces at the digital Local Exchange (LE); V5.2 interface for the support of Access Network (AN); Part 1: V5.2 interface specification".

[21]   ETSI EN 300 359-1 (V1.2): "Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[22]   ETSI EN 300 362 (V1.2): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Call offer supplementary service [ISO/IEC 14843 (1996), modified]".

[23]   ETSI EN 300 364 (V1.2): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Do not disturb and do not disturb override supplementary services [ISO/IEC 14844 (1996), modified]".

[24]   ETSI EN 300 369-1 (V1.2): "Integrated Services Digital Network (ISDN); Explicit Call Transfer (ECT) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[25]   ETSI EN 300 403-1 (V1.3): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[26]   ETSI EN 300 426 (V1.2): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Call intrusion supplementary service [ISO/IEC 14846 (1996), modified]".

[27]   ETSI EN 300 443-1 (V1.3): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for basic call/bearer control; Part 1: Protocol specification [ITU-T Recommendation Q.2931 (1995), modified]".

[28]   ETSI EN 300 745-1 (V1.2): "Integrated Services Digital Network (ISDN); Message Waiting Indication (MWI) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[29]   ETSI EN 301 001-1 (V1.2): "Integrated Services Digital Network (ISDN); Outgoing Call Barring (OCB) supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[30]   ETSI EN 301 002-1 (V1.2): "Integrated Services Digital Network (ISDN); Security tools (SET) procedures; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[31]   ETSI EN 301 005-1 (V1.1): "V interfaces at the digital Service Node (SN); Interfaces at the VB5.1 reference point for the support of broadband or combined narrowband and broadband Access Networks (ANs); Part 1: Interface specification".

[32]   ETSI EN 301 060-1 (V.1.2): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Basic call control; Enhancement at the "b" service entry point for Virtual Private Network (VPN) applications; Part 1: Protocol specification".

[33]   ETSI EN 301 061-1 (V1.2): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Generic functional protocol for the support of supplementary services at the "b" service entry point for Virtual Private Network (VPN) applications; Part 1: Protocol specification".

[34]   ETSI EN 301 065-1 (V1.2): "Integrated Services Digital Network (ISDN); Completion of Calls on No Reply (CCNR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[35]   ETSI EN 301 141-1 (V1.2) "Integrated Services Digital Network (ISDN); Narrowband Multi-service Delivery System (NMDS); Part 1: NMDS interface specification".

[36]   ETSI EN 301 144-1 (V1.1): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) and Signalling System No.7 (SS7); Signalling application for the mobility management service on the alpha interface; Part 1: Protocol specification".

[37]   ETSI EN 302 094-1 (V1.1): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol and Signalling System No. 7 (SS7) protocols; Call Forwarding on Not Reachable (CFNRc) supplementary service for Cordless Terminal Mobility (CTM) phase 1; Part 1: Protocol specification".

[38]   ETSI EN 301 484-1 (V1.1): "Integrated Services Digital Network (ISDN); Line Hunting (LH) supplementary service; Digital Subscriber Signalling System No. one (DSS1); Part 1: Protocol specification".

[39]   ITU-T Recommendation Q.931 (1998): "ISDN user-network interface layer 3 specification for basic call control".

[40]   ITU-T Recommendation Q.2931 (1995): "Broadband Integrated Services Digital Network
               (B-ISDN) - Digital Subscriber Signalling System No. 2 (DSS 2) - User-Network Interface
               (UNI) - Layer 3 specification for basic call/connection control".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the following definitions apply:

Integrated Services Digital Network (ISDN): see ITU-T Recommendation I.112 [1], definition 308

network: DSS1 protocol entity at the network side of the user-network interface

service; telecommunication service: see ITU-T Recommendation I.112 [1], definition 201

supplementary service: see ITU-T Recommendation I.210 [2], subclause 2.4

user: DSS1 protocol entity at the user side of the user-network interface

3.2   Abbreviations

For the purposes of the present document, the following abbreviations apply:

3PTY	Three-Party
ASN.1	Abstract Syntax Notation one
BER	Basic Encoding Rules
CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
CFNRc	Call Forwarding on Not Reachable
CONF	Conference call, add-on
CUG	Closed User Group
DSS1	Digital Subscriber Signalling System No. one
ECT	Explicit Call Transfer
FPH	Freephone
HOLD	Call Hold
ISDN	Integrated Services Digital Network
LH	Line Hunting
MWI	Message Waiting Indication
OCB	Outgoing Call Barring
SCF	Selective Call Forwarding
SET	Security Tools
USBS	User Signalling Bearer Service
UUS	User-to-User Signalling

4   DSS1 message codepoints

The DSS1 messages and their associated codepoints are shown in table 1. The reference indicates the ETSI specification that contains the message definition.

Table 1: DSS1 message codepoints

8	7	6	5	4	3	2	1	Message	Reference
0	0	0	0	0	0	0	0	Escape to nationally specific message type	EN 300 403-1 [25]
0	0	0	-	-	-	-	-	**Call establishment messages**	
			0	0	0	0	1	ALERTING	ETS 300 007 [5], EN 300 403-1 [25]
			0	0	0	1	0	CALL PROCEEDING	ETS 300 007 [5], EN 300 403-1 [25]
			0	0	0	1	1	PROGRESS	ETS 300 007 [5], EN 300 403-1 [25]
			0	0	1	0	1	SETUP	ETS 300 007 [5], EN 300 403-1 [25]
			0	0	1	1	1	CONNECT	ETS 300 007 [5], EN 300 403-1 [25]
			0	1	1	1	1	CONNECT ACKNOWLEDGE	ETS 300 007 [5], EN 300 403-1 [25]
			0	1	1	0	1	SETUP ACKNOWLEDGE	EN 300 403-1 [25]
0	0	1	-	-	-	-	-	**Call information phase messages**	
			0	0	0	0	0	USER INFORMATION	EN 300 286-1 [18]
			0	0	0	0	1	SUSPEND REJECT	EN 300 403-1 [25]
			0	0	0	1	0	RESUME REJECT	EN 300 403-1 [25]
			0	0	1	0	0	HOLD	EN 300 196-1 [15]
			0	0	1	0	1	SUSPEND	EN 300 403-1 [25]
			0	0	1	1	0	RESUME	EN 300 403-1 [25]
			0	1	0	0	0	HOLD ACKNOWLEDGE	EN 300 196-1 [15]
			0	1	1	0	1	SUSPEND ACKNOWLEDGE	EN 300 403-1 [25]
			0	1	1	1	0	RESUME ACKNOWLEDGE	EN 300 403-1 [25]
			1	0	0	0	0	HOLD REJECT	EN 300 196-1 [15]
			1	0	0	0	1	RETRIEVE	EN 300 196-1 [15]
			1	0	0	1	1	RETRIEVE ACKNOWLEDGE	EN 300 196-1 [15]
			1	0	1	1	1	RETRIEVE REJECT	EN 300 196-1 [15]
0	1	0	-	-	-	-	-	**Call clearing messages**	
			0	0	0	0	0	DETACH	(note)
			0	0	1	0	1	DISCONNECT	ETS 300 007 [5], EN 300 403-1 [25]
			0	0	1	1	0	RESTART	EN 300 403-1 [25]
			0	1	0	0	0	DETACH ACKNOWLEDGE	(note)
			0	1	1	0	1	RELEASE	ETS 300 007 [5], EN 300 196-1 [15], EN 300 403-1 [25]
			0	1	1	1	0	RESTART ACKNOWLEDGE	EN 300 403-1 [25]
			1	1	0	1	0	RELEASE COMPLETE	ETS 300 007 [5], EN 300 196-1 [15], EN 300 403-1 [25]

Message type Bit								Message	Reference
8	7	6	5	4	3	2	1		
0	1	1	-	-	-	-	-	**<u>Miscellaneous messages</u>**	
			0	0	0	0	0	SEGMENT	EN 300 403-1 [25]
			0	0	0	1	0	FACILITY	EN 300 196-1 [15]
			0	0	1	0	0	REGISTER	EN 300 196-1 [15]
			0	1	1	1	0	NOTIFY	EN 300 196-1 [15], EN 300 403-1 [25]
			1	0	1	0	1	STATUS ENQUIRY	ETS 300 007 [5], EN 300 196-1 [15], EN 300 403-1 [25]
			1	1	0	0	1	CONGESTION CONTROL	EN 300 286-1 [18]
			1	1	0	1	1	INFORMATION	EN 300 403-1 [25]
			1	1	1	0	1	STATUS	ETS 300 007 [5], EN 300 196-1 [15], EN 300 403-1 [25]
NOTE: This message codepoint is obsolete, but the value is reserved for reasons of backwards compatibility.									

5   DSS1 information element codepoints

5.1   Codeset 0

The DSS1 information elements and their associated codepoints, which are defined in codeset 0, are shown in table 2.
The reference indicates the ETSI specification that contains the information element definition.

Table 2: DSS1 information element codepoints

\multicolumn{8}{l}{Information element identifier Bit}	Information element	Reference
8	7	6	5	4	3	2	1		
1	:	:	:	-	-	-	-	**Single octet information elements**	
	0	0	0	-	-	-	-	Reserved	EN 300 403-1 [25]
	0	0	1	-	-	-	-	Shift	EN 300 403-1 [25]
	0	1	0	0	0	0	0	More data	EN 300 286-1 [18]
	0	1	0	0	0	0	1	Sending complete	EN 300 403-1 [25]
	0	1	1	-	-	-	-	Congestion level	EN 300 286-1 [18]
	1	0	1	-	-	-	-	Repeat indicator	(note)
0	:	:	:	:	:	:	:	**Variable length information elements**	
	0	0	0	0	0	0	0	Segmented message	EN 300 403-1 [25]
	0	0	0	0	1	0	0	Bearer capability	EN 300 403-1 [25]
	0	0	0	0	1	0	1	VPN indicator	EN 301 060-1 [32]
	0	0	0	1	0	0	0	Cause	EN 300 403-1 [25]
	0	0	0	1	1	0	1	Extended facility	EN 300 196-1 [15]
	0	0	1	0	0	0	0	Call identity	EN 300 403-1 [25]
	0	0	1	0	1	0	0	Call state	EN 300 196-1 [15], EN 300 403-1 [25]
	0	0	1	1	0	0	0	Channel identification	EN 300 403-1 [25]
	0	0	1	1	1	0	0	Facility	EN 300 196-1 [15]
	0	0	1	1	1	1	0	Progress indicator	EN 300 403-1 [25] EN 301 060-1 [32]
	0	1	0	0	0	0	0	Network-specific facilities	EN 300 403-1 [25]
	0	1	0	0	1	1	1	Notification indicator	EN 300 196-1 [15], EN 300 403-1 [25]
	0	1	0	1	0	0	0	Display	EN 300 403-1 [25]
	0	1	0	1	0	0	1	Date/time	EN 300 403-1 [25]
	0	1	0	1	1	0	0	Keypad facility	EN 300 403-1 [25]
	0	1	1	0	1	0	0	Signal	(note)
	0	1	1	0	1	1	0	Switchhook	(note)
	0	1	1	1	0	0	0	Feature activation	(note)
	0	1	1	1	0	0	1	Feature indication	(note)
	1	0	0	0	0	0	0	Information rate	(note)
	1	0	0	0	0	1	0	End-to-end transit delay	(note)
	1	0	0	0	0	1	1	Transit delay selection and indication	(note)
	1	0	0	0	1	0	0	Packet layer binary parameters	(note)
	1	0	0	0	1	0	1	Packet layer window size	(note)
	1	0	0	0	1	1	0	Packet size	(note)
	1	0	0	0	1	1	1	Closed user group	(note)
	1	0	0	1	0	1	0	Reverse charge indication	(note)

Information element identifier Bit							Information element	Reference
8	7	6	5	4	3	2	1		
0	:	:	:	:	:	:	:	**Variable length information elements** (continued)	
	1	0	0	1	1	0	0	Connected number	EN 300 097-1 [7]
	1	0	0	1	1	0	1	Connected subaddress	EN 300 097-1 [7]
	1	1	0	1	1	0	0	Calling party number	EN 300 403-1 [25] EN 301 060-1 [32]
	1	1	0	1	1	0	1	Calling party subaddress	EN 300 403-1 [25]
	1	1	1	0	0	0	0	Called party number	EN 300 403-1 [25] EN 301 060-1 [32]
	1	1	1	0	0	0	1	Called party subaddress	EN 300 403-1 [25]
	1	1	1	0	1	0	0	Redirecting number	ETS 300 007 [5], EN 300 207-1 [16]
	1	1	1	0	1	1	0	Redirection number	EN 300 207-1 [16]
	1	1	1	1	0	0	0	Transit network selection	EN 300 403-1 [25]
	1	1	1	1	0	0	1	Restart indicator	EN 300 403-1 [25]
	1	1	1	1	1	0	0	Low layer compatibility	EN 300 403-1 [25]
	1	1	1	1	1	0	1	High layer compatibility	EN 300 403-1 [25]
	1	1	1	1	1	1	0	User-user	EN 300 286-1 [18]
	1	1	1	1	1	1	1	Escape for extension	EN 300 403-1 [25]

All other values are reserved.
NOTE: Not applicable in networks conforming to ETSI specifications.

5.2   Codeset 4

The DSS1 information elements and their associated codepoints, which are defined in codeset 4, are shown in table 3.

Table 3: DSS1 information element codepoints

Information element identifier Bit							Information element	Reference
8	7	6	5	4	3	2	1		
0	:	:	:	:	:	:	:	**Variable length information elements**	
	0	1	1	0	0	0	1	Transit counter	EN 301 060-1 [32]

5.3   Codeset 5

The DSS1 information elements and their associated codepoints, which are defined in codeset 5, are shown in table 4.

Table 4: DSS1 information element codepoints

Information element identifier Bit								Information element	Reference
8	7	6	5	4	3	2	1		
1	:	:	:	-	-	-	-	**Single octet information elements**	
	0	0	0	-	-	-	-	Reserved	
	0	0	1	-	-	-	-	Shift	
0	:	:	:	:	:	:	:	**Variable length information elements**	
	0	0	0	1	1	0	0	Connected number	(note)
	0	0	0	1	1	0	1	Connected subaddress	(note)
	0	0	1	1	0	1	0	Charge advice	(note)
	0	1	0	0	0	0	0	Network-specific facilities	(note)
	0	1	0	1	0	0	1	Date/time	(note)
NOTE:	This information element codepoint is obsolete but the value is reserved for reasons of backwards compatibility.								

6 Protocol discriminator values

The protocol discriminator values are shown in table 5. The reference indicates the ETSI specification that contains the definition of the relevant value.

Table 5: Protocol discriminator values

Protocol discriminator value Bit 8 7 6 5 4 3 2 1	Meaning	Reference
0 0 0 0 0 0 0 0 through 0 0 0 0 0 1 1 1	Assigned for user-to-user signalling (see EN 300 286-1 [18]) - not available for use in the message protocol discriminator	
0 0 0 0 1 0 0 0	Q.931 [39] user-network call control messages	EN 300 403-1 [25]
0 0 0 0 1 0 0 1	Q.2931 [40] user-network call control messages	EN 300 443-1 [27]
0 0 0 1 0 0 0 0 through 0 0 1 1 1 1 1 1	Reserved for other network layer or layer 3 protocols, including ITU-T Recommendation X.25 [4] (note)	
0 1 0 0 0 0 0 0 through 0 1 0 0 0 1 1 1	National use	
0 1 0 0 1 0 0 0	V5 protocol	EN 300 324-1 [19], EN 300 347-1 [20] EN 301 141-1 [35]
0 1 0 0 1 0 0 1	VB5.1 protocol	EN 301 005-1 [31]
0 1 0 0 1 0 1 0 through 0 1 0 0 1 1 1 1	Reserved for ETSI use	
0 1 0 1 0 0 0 0 through 1 1 1 1 1 1 1 0	Reserved for other network layer or layer 3 protocols, including ITU-T Recommendation X.25 [4] (note)	
All other values are reserved.		
NOTE: These values are reserved to discriminate these protocol discriminators from the first octet of a X.25 [4] packet including general format identifier.		

7 Notifications

7.1 Notification indicator values

The notification indicator values are shown in table 6. The reference indicates the ETSI specification that contains the definition of the relevant value.

Table 6: Notification indicator values

Notification indicator value Bit								Meaning	Reference
8	7	6	5	4	3	2	1		
1	0	0	0	0	0	0	0	User suspended	EN 300 403-1 [25]
1	0	0	0	0	0	0	1	User resumed	EN 300 403-1 [25]
1	0	0	0	0	0	1	0	Bearer service change	(note)
1	0	0	0	0	0	1	1	Discriminator for BER encoded notification extension	EN 300 196-1 [15]
1	0	0	0	0	1	0	0	Call completion delay	EN 300 210-1 [17]
1	0	1	0	0	0	0	0	Reserved for ISO	EN 301 061-1 [33]
			through						
1	0	1	1	1	1	1	1		
1	1	0	0	0	0	0	0	Discriminator for extension to ASN.1 encoded component for ISO	EN 301 061-1 [33]
1	1	0	0	0	0	1	0	Conference established	EN 300 185-1 [12], EN 300 188-1 [13]
1	1	0	0	0	0	1	1	Conference disconnected	EN 300 185-1 [12], EN 300 188-1 [13]
1	1	0	0	0	1	0	0	Other party added	EN 300 185-1 [12]
1	1	0	0	0	1	0	1	Isolated	EN 300 185-1 [12]
1	1	0	0	0	1	1	0	Reattached	EN 300 185-1 [12]
1	1	0	0	0	1	1	1	Other party isolated	EN 300 185-1 [12]
1	1	0	0	1	0	0	0	Other party reattached	EN 300 185-1 [12]
1	1	0	0	1	0	0	1	Other party split	EN 300 185-1 [12]
1	1	0	0	1	0	1	0	Other party disconnected	EN 300 185-1 [12]
1	1	1	0	0	0	0	0	Call is a waiting call	EN 300 058-1 [6]
1	1	1	0	1	0	0	0	Diversion activated	EN 300 207-1 [16]
1	1	1	0	1	0	0	1	Call transferred, alerting	EN 300 369-1 [24]
1	1	1	0	1	0	1	0	Call transferred, active	EN 300 369-1 [24]
1	1	1	0	1	1	1	0	Reverse charging (Whole call)	(note)
1	1	1	0	1	1	1	1	Reverse charging (For the rest of the call)	(note)
1	1	1	1	1	0	0	1	Remote hold	EN 300 141-1 [10], EN 300 188-1 [13]
1	1	1	1	1	0	1	0	Remote retrieval	EN 300 141-1 [10]
1	1	1	1	1	0	1	1	Call is diverting	EN 300 207-1 [16]
NOTE: Not applicable in networks conforming to ETSI specifications.									

7.2   Notification indicators defined by global value

The notification indicators defined using the ECMA object identifier are shown in table 7. These notification indicators are defined for use in a private ISDN context, but may be carried transparently by the public network. The notification indicators shown in table 7 all use the discriminator for Basic Encoding Rules (BER) encoded notification extension (i.e. octet 3 of the Notification indicator information element is set to "1 0 0 0 0 0 1 1 ").

Table 7: Notification indicators defined by global value

Notification indicator name	Object identifier	Reference
remoteUserAlerting	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2000}	EN 300 362 [22], EN 300 426 [26]
doNotDisturb	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2002}	EN 300 364 [23]
intrusionIsImpending	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2003}	EN 300 426 [26]
intrusionIsEffective	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2004}	EN 300 426 [26]
isolationThroughIntrusion	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2005}	EN 300 426 [26]
forcedReleaseAfterIntrusion	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2006}	EN 300 426 [26]
endOfIntrusion	{iso (1) identified-organization (3) icd-ecma (0012) private-isdn-signalling-domain (9) 2007}	EN 300 426 [26]

8   Progress indicator values

The progress indicator values are shown in table 8. The reference indicates the ETSI specification that contains the definition of the relevant value.

Table 8: Progress indicator values

Progress indicator value Bit 8 7 6 5 4 3 2 1	Meaning	Reference
Codepoints with coding standard = ITU-T standardized coding		
1 0 0 0 0 0 0 1	Call is not end-to-end ISDN; further call progress information may be available in-band	EN 300 403-1 [25]
1 0 0 0 0 0 1 0	Destination address is non-ISDN	EN 300 403-1 [25]
1 0 0 0 0 0 1 1	Origination address is non-ISDN	EN 300 403-1 [25]
1 0 0 0 0 1 0 0	Call has returned to the ISDN	EN 300 403-1 [25]
1 0 0 0 0 1 0 1	Interworking has occurred and has resulted in a telecommunication service change	EN 300 403-1 [25]
1 0 0 0 1 0 0 0	In-band information or an appropriate pattern is now available	EN 300 403-1 [25]
Codepoints with coding standard = ISO/IEC standard		
1 0 0 1 0 0 0 0	Interworking with a public network	EN 301 060-1 [32]
1 0 0 1 0 0 0 1	Interworking with a network unable to supply a release signal	EN 301 060-1 [32]
1 0 0 1 0 0 1 0	Interworking with a network unable to supply a release signal before answer	EN 301 060-1 [32]
1 0 0 1 0 0 1 1	Interworking with a network unable to supply a release signal after answer	EN 301 060-1 [32]

9   State values

The state values are shown in table 9. The reference indicates the ETSI specification that contains the definition of the relevant value.

Table 9: Call state values

State value Bit						User (U)/Network (N) state	Reference
6	5	4	3	2	1		
						Call state values	
0	0	0	0	0	0	U0/N0 Null	EN 300 403-1 [25]
0	0	0	0	0	1	U1/N1 Call Initiated	EN 300 403-1 [25]
0	0	0	0	1	0	U2/N2 Overlap Sending	EN 300 403-1 [25]
0	0	0	0	1	1	U3/N3 Outgoing Call Proceeding	EN 300 403-1 [25]
0	0	0	1	0	0	U4/N4 Call Delivered	EN 300 403-1 [25]
0	0	0	1	1	0	U6/N6 Call Present	EN 300 403-1 [25]
0	0	0	1	1	1	U7/N7 Call Received	EN 300 403-1 [25]
0	0	1	0	0	0	U8/N8 Connect Request	EN 300 403-1 [25]
0	0	1	0	0	1	U9/N9 Incoming Call Proceeding	EN 300 403-1 [25]
0	0	1	0	1	0	U10/N10 Active	EN 300 403-1 [25]
0	0	1	0	1	1	U11/N11 Disconnect Request	EN 300 403-1 [25]
0	0	1	1	0	0	U12/N12 Disconnect Indication	EN 300 403-1 [25]
0	0	1	1	1	1	U15/N15 Suspend Request	EN 300 403-1 [25]
0	1	0	0	0	1	U17/N17 Resume Request	EN 300 403-1 [25]
0	1	0	0	1	1	U19/N19 Release Request	EN 300 403-1 [25]
0	1	0	1	1	0	N22 Call Abort	EN 300 403-1 [25]
0	1	1	0	0	1	U25/N25 Overlap Receiving	EN 300 403-1 [25]
0	1	1	1	1	1	U31/N31 Bearer Independent Transport	EN 300 196-1 [15]
						Global interface state values	
0	0	0	0	0	0	REST 0 Null	EN 300 403-1 [25]
1	1	1	1	0	1	REST 1 Restart Request	EN 300 403-1 [25]
1	1	1	1	1	0	REST 2 Restart	EN 300 403-1 [25]

10 Operations

10.1 Operations defined by local value

The operation values are shown in table 10. The reference indicates the ETSI specification that contains the definition of the relevant operation.

Table 10: Operation values

localValue	Operation name	Reference
1	userUserService	EN 300 286-1 [18]
2	cUGCall	EN 300 138-1 [9]
3	mCIDRequest	EN 300 130-1 [8]
4	begin3PTY	EN 300 188-1 [13]
5	end3PTY	EN 300 188-1 [13]
6	ectExecute	EN 300 369-1 [24]
7	activationDiversion	EN 300 207-1 [16]
8	deactivationDiversion	EN 300 207-1 [16]
9	activationStatusNotificationDiv	EN 300 207-1 [16]
10	deactivationStatusNotificationDiv	EN 300 207-1 [16]
11	interrogationDiversion	EN 300 207-1 [16]
12	diversionInformation	EN 300 207-1 [16]
13	callDeflection	EN 300 207-1 [16]
14	callRerouting	EN 300 207-1 [16]
15	divertingLegInformation2	EN 300 207-1 [16]
16	invokeStatus	(note)
17	interrogateServedUserNumbers	EN 300 207-1 [16]
18	divertingLegInformation1	EN 300 207-1 [16]
19	divertingLegInformation3	EN 300 207-1 [16]
20	explicitReservationCreationControl	EN 300 196-1 [15]
21	explicitReservationManagement	EN 300 196-1 [15]
22	explicitReservationCancel	EN 300 196-1 [15]
24	mLPPLFBquery	(note)
25	mLPPCallrequest	(note)
26	mLPPCallpreemption	(note)
30	chargingRequest	EN 300 182-1 [11]
31	aOCSCurrency	EN 300 182-1 [11]
32	aOCSSpecialArr	EN 300 182-1 [11]
33	aOCDCurrency	EN 300 182-1 [11]
34	aOCDChargingUnit	EN 300 182-1 [11]
35	aOCECurrency	EN 300 182-1 [11]
36	aOCEChargingUnit	EN 300 182-1 [11]
37	identificationOfCharge	EN 300 195-1 [14]
40	beginCONF	EN 300 185-1 [12]
41	addCONF	EN 300 185-1 [12]
42	splitCONF	EN 300 185-1 [12]
43	dropCONF	EN 300 185-1 [12]
44	isolateCONF	EN 300 185-1 [12]
45	reattachCONF	EN 300 185-1 [12]
46	partyDISC	EN 300 185-1 [12]
47	floatCONF	(note)
48	endCONF	(note)
49	identifyConferee	EN 300 195-1 [14]

localValue	Operation name	Reference
60	requestREV	(note)
61	rEVIndication	(note)
62	rEV-T-Status	(note)
66	uUSRequest	EN 300 195-1 [14]
70	callInfoRetain	(note)
71	cCBSRequest	(note)
72	cCBSDeactivate	(note)
73	cCBSInterrogate	(note)
74	cCBSErase	(note)
75	cCBSRemoteUserFree	(note)
76	cCBSCall	(note)
77	cCBSStatusRequest	(note)
78	cCBSBFree	(note)
79	eraseCallLinkageID	(note)
80	cCBSStopAlerting	(note)
83	cCBS-T-Request	(note)
84	cCBS-T-Call	(note)
85	cCBS-T-Suspend	(note)
86	cCBS-T-Resume	(note)
87	cCBS-T-RemoteUserFree	(note)
88	cCBS-T-Available	(note)
90	explicitEctExecute	(note)
91	requestSubaddress	(note)
92	subaddressTransfer	(note)
93	ectLinkIdRequest	(note)
94	ectInform	(note)
95	ectLoopTest	(note)
96	cCNRRequest	(note)
97	cCNRInterrogate	(note)
98	cCNR-T-Request	(note)

NOTE: Not applicable in networks conforming to ETSI specifications.

10.2 Operations defined by global value

The operations defined by global value (i.e. using an ETSI object identifier) are shown in table 11. The reference indicates the ETSI specification that contains the definition of the relevant operation.

Table 11: Operations using an ETSI object identifier

Operation name	Object identifier/globalValue	Reference
statusRequest	{ccitt identified-organization etsi (0) 196 status-request-procedure (9) statusRequest-operation (1)}	EN 300 196-1 [15]
	SCF supplementary services scfOID OBJECT IDENTIFIER ::= {itu identified-organization etsi (0) 207 scf-operations-and-errors (2)}	
activationSCF	{scfOID 1}	EN 300 207-1 [16]
deactivationSCF	{scfOID 2}	EN 300 207-1 [16]
interrogationSCF	{scfOID 3}	EN 300 207-1 [16]
interrogateSCFList	{scfOID 4}	EN 300 207-1 [16]
activationStatusNotificationSCF	{scfOID 5}	EN 300 207-1 [16]
deactivationStatusNotificationSCF	{scfOID 6}	EN 300 207-1 [16]
	FPH supplementary service fPHOID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 210 freephone-operations (1)}	
callFPH	{fPHOID callFPH-operation (1)}	EN 300 210-1 [17]
monitor-T-FPH	{fPHOID monitor-T-FPH-operation (2)}	EN 300 210-1 [17]
free-T-FPH	{fPHOID free-T-FPH-operation (3)}	EN 300 210-1 [17]
call-T-FPH	{fPHOID call-T-FPH-operation (4)}	EN 300 210-1 [17]
	CCBS supplementary service, **at the S and T reference point** cCBSOID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 359 operations-and-errors (1)}	
callInfoRetain	{cCBSOID 1}	EN 300 359-1 [21]
cCBSRequest	{cCBSOID 2}	EN 300 359-1 [21]
cCBSDeactivate	{cCBSOID 3}	EN 300 359-1 [21]
cCBSInterrogate	{cCBSOID 4}	EN 300 359-1 [21]
cCBSErase	{cCBSOID 5}	EN 300 359-1 [21]
cCBSRemoteUserFree	{cCBSOID 6}	EN 300 359-1 [21]
cCBSCall	{cCBSOID 7}	EN 300 359-1 [21]
cCBSStatusRequest	{cCBSOID 8}	EN 300 359-1 [21]
cCBSBFree	{cCBSOID 9}	EN 300 359-1 [21]
eraseCallLinkageID	{cCBSOID 10}	EN 300 359-1 [21]
cCBSStopAlerting	{cCBSOID 11}	EN 300 359-1 [21]
	CCBS supplementary service, **at the T reference point** cCBS-T-OID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 359 private-network-operations-and-errors (2)}	
cCBS-T-Request	{cCBS-T-OID 1}	EN 300 359-1 [21]
cCBS-T-Call	{cCBS-T-OID 2}	EN 300 359-1 [21]
cCBS-T-Suspend	{cCBS-T-OID 3}	EN 300 359-1 [21]
cCBS-T-Resume	{cCBS-T-OID 4}	EN 300 359-1 [21]
cCBS-T-RemoteUserFree	{cCBS-T-OID 5}	EN 300 359-1 [21]
cCBS-T-Available	{cCBS-T-OID 6}	EN 300 359-1 [21]

Operation name	Object identifier/globalValue	Reference
	ECT supplementary service eCTOID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 369 operations-and-errors (1)}	
explicitEctExecute	{eCTOID explicitEctExecute-operation (1)}	EN 300 369-1 [24]
requestSubaddress	{eCTOID requestSubaddress-operation (2)}	EN 300 369-1 [24]
subaddressTransfer	{eCTOID subaddressTransfer-operation (3)}	EN 300 369-1 [24]
ectLinkIdRequest	{eCTOID ectLinkIdRequest-operation (4)}	EN 300 369-1 [24]
ectInform	{eCTOID ectInform-operation (5)}	EN 300 369-1 [24]
ectLoopTest	{eCTOID ectLoopTest-operation (6)}	EN 300 369-1 [24]
	MWI supplementary service mWIOID OBJECT IDENTIFIER::= {ccitt identified-organization etsi (0) 745 operations-and-errors (1)}	
mWIActivate	{mWIOID 1}	EN 300 745-1 [28]
mWIDeactivate	{mWIOID 2}	EN 300 745-1 [28]
mWIIndicate	{mWIOID 3}	EN 300 745-1 [28]
	OCB supplementary services oCBOID OBJECT IDENTIFIER::= {ccitt identified-organization etsi (0) 1 001 operations-and-errors (1)}	
activationOcb	{oCBOID 1}	EN 301 001-1 [29]
deactivationOcb	{oCBOID 2}	EN 301 001-1 [29]
activationStatusNotificationOcb	{oCBOID 3}	EN 301 001-1 [29]
deactivationStatusNotificationOcb	{oCBOID 4}	EN 301 001-1 [29]
interrogationOcb	{oCBOID 5}	EN 301 001-1 [29]
disableOcb	{oCBOID 6}	EN 301 001-1 [29]
ocbInvoked	{oCBOID 7}	EN 301 001-1 [29]
	Security tools (SET) procedures, PIN procedures pINOID OBJECT IDENTIFIER::= {ccitt identified-organization etsi (0) 1 002 operations-and-errors (1)}	
modifyPin	{pINOID 1}	EN 301 002-1 [30]
possibleFraudulentPinUse	{pINOID 2}	EN 301 002-1 [30]
	Security tools (SET) procedures, TAN procedures tANOID OBJECT IDENTIFIER::= {ccitt identified-organization etsi (0) 1 002 operations-and-errors (2)}	
possibleFraudulentTanUse	{tANOID 1}	EN 301 002-1 [30]
possibleFraudulentPinUse	{tANOID 2}	EN 301 002-1 [30]
	CCNR supplementary service, at the S and T reference point cCNROID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 1 065 operations-and-errors (1)}	
cCNRRequest	{cCNROID 1}	EN 301 065-1 [34]
cCNRInterrogate	{cCNROID 2}	EN 301 065-1 [34]
	CCNR supplementary service, at the T reference point cCNR-T-OID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 1 065 private-networks-operations-and-errors (2)}	
cCNR-T-Request	{cCNR-T-OID 1}	EN 301 065-1 [34]

Operation name	Object identifier/globalValue	Reference
	Mobility management service on alpha interface	
	mMOID OBJECT IDENTIFIER ::=	
	{ccitt identified-organization etsi (0)	
	1 144 operations-and-errors (1)}	
cTMAccessRightsRequest	{mMOID 1}	EN 301 144-1 [36]
cTMAccessRightsTerminate	{mMOID 2}	EN 301 144-1 [36]
cTNLocationRegistration	{mMOID 3}	EN 301 144-1 [36]
cTMLocationCancellation	{mMOID 4}	EN 301 144-1 [36]
cTMLocationRegistrationSuggest	{mMOID 5}	EN 301 144-1 [36]
cTMTerminalAuthentication	{mMOID 6}	EN 301 144-1 [36]
cTMNetworkAuthentication	{mMOID 7}	EN 301 144-1 [36]
cTMCiphering	{mMOID 8}	EN 301 144-1 [36]
cTMCipheringSuggest	{mMOID 9}	EN 301 144-1 [36]
cTMKeyAllocate	{mMOID 10}	EN 301 144-1 [36]
cTMIdentityRequest	{mMOID 11}	EN 301 144-1 [36]
cTMOutgoingCallMMInfo	{mMOID 12}	EN 301 144-1 [36]
cTMIncomingCallMMInfo	{mMOID 13}	EN 301 144-1 [36]
gSMLocationRegistration	{mMOID 20}	EN 301 144-1 [36]
gSMLocationCancellation	{mMOID 21}	EN 301 144-1 [36]
gSMDetach	{mMOID 22}	EN 301 144-1 [36]
gSMTerminalAuthentication	{mMOID 23}	EN 301 144-1 [36]
gSMTerminalAuthenticationReject	{mMOID 24}	EN 301 144-1 [36]
gSMCiphering	{mMOID 25}	EN 301 144-1 [36]
gSMAssignIdentity	{mMOID 26}	EN 301 144-1 [36]
gSMLinkedAssignIdentity	{mMOID 27}	EN 301 144-1 [36]
gSMIdentityRequest	{mMOID 28}	EN 301 144-1 [36]
gSMOutgoingCallMMInfo	{mMOID 29}	EN 301 144-1 [36]
gSMIncomingCallMMInfo	{mMOID 30}	EN 301 144-1 [36]
	LH supplementary service	
	lHOID OBJECT IDENTIFIER ::=	
	{itu-t identified-organization etsi (0)	
	1 484 operations-and-errors (1)}	
withdrawLHG	{lHOID 1}	EN 301 484-1 [38]
cancelWithdrawLHG	{lHOID 2}	EN 301 484-1 [38]
interrogationLHG	{lHOID 3}	EN 301 484-1 [38]
withdrawnFromLHG	{lHOID 4}	EN 301 484-1 [38]
	CFNRc supplementary service	
	cFNRcOID OBJECT IDENTIFIER ::=	
	{ccitt identified-organization etsi (0)	
	2 094 operations-and-errors (1)}	
encapsulatedStimulus	{cFNRcOID 1}	EN 302 094-1 [37]

11 Errors

11.1 Errors defined by local value

The error values are shown in table 12. The reference indicates the ETSI specification that contains the definition of the relevant error.

Table 12: Error values

localValue	Error name	Reference
0	notSubscribed	EN 300 196-1 [15]
1	rejectedByNetwork	EN 300 286-1 [18]
2	rejectedByUser	EN 300 286-1 [18]
3	notAvailable	EN 300 196-1 [15]
4	notImplemented	EN 300 196-1 [15]
5	insufficientInfo	(note 1)
6	invalidServedUserNr	EN 300 196-1 [15]
7	invalidCallState	EN 300 196-1 [15]
8	basicServiceNotProvided	EN 300 196-1 [15]
9	notIncomingCall	EN 300 196-1 [15]
10	supplementaryServiceInteractionNotAllowed	EN 300 196-1 [15]
11	resourceUnavailable	EN 300 196-1 [15]
12	invalidDivertedToNr	EN 300 207-1 [16]
13	operatorAccess	(note 1)
14	specialServiceNr	EN 300 207-1 [16]
15	diversionToServedUserNr	EN 300 207-1 [16]
16	invalidOrUnregisteredCUGIndex	EN 300 138-1 [9]
17	requestedBasicServiceViolatesCUGConstraints	EN 300 138-1 [9]
18	outgoingCallsBarredWithinCUG	EN 300 138-1 [9]
19	incomingCallsBarredWithinCUG	EN 300 138-1 [9]
20	userNotMemberOfCUG	EN 300 138-1 [9]
21	inconsistencyInDesignatedFacilityAndSubscriberClass	EN 300 138-1 [9]
23	incomingCallAccepted	EN 300 207-1 [16]
24	numberOfDiversionsExceeded	EN 300 207-1 [16]
25	callFailure	(note 1)
26	noChargingInfoAvailable	EN 300 182-1 [11]
27	cUGViolation	(note 1)
28	illConferenceId	EN 300 185-1 [12]
29	illPartyId	EN 300 185-1 [12]
30	numberOfPartiesExceeded	EN 300 185-1 [12]
31	notActive	EN 300 185-1 [12]
32	notAllowed	EN 300 185-1 [12]

localValue	Error name	Reference
33	maximumNumberOfReservationsReached	EN 300 196-1 [15]
34	noExplicitReservationExistsOrInvalidReservationIndicator	EN 300 196-1 [15]
35	unwantedReservationCreated	EN 300 196-1 [15]
36	implicitReservationUsed	EN 300 196-1 [15]
43	proceduralError	(note 1)
44	unauthorizedPrecedenceLevel	(note 1)
45	userIgnored	(note 1)
46	notActivated	EN 300 207-1 [16], EN 300 745-1 [28], EN 301 001-1 [29]
47	uusReqAsEssential	(note 1)
48	requestAlreadyAccepted	EN 300 207-1 [16]
49	rEVIsAlreadyRunning	(note 1)
50	invalidCallLinkageID	(note 1)
51	invalidCCBSReference	(note 1)
52	longTermDenial	(note 1)
53	shortTermDenial	(note 1)
54	cCBSIsAlreadyActivated	(note 1)
55	alreadyAccepted	(note 1)
56	outgoingCCBSQueueFull	(note 1)
57	callFailureReasonNotBusy	(note 1)
58	notReadyForCall	(note 1)
59	shortTermDenial	(notes 1 and 2)
60	longTermDenial	(notes 1 and 2)
61	linkIdNotAssignedByNetwork	(note 1)

NOTE 1: Not applicable in networks conforming to ETSI specifications.
NOTE 2: For private ISDNs.

11.2   Errors defined by global value

The errors defined by global value (i.e. using an ETSI object identifier) are shown in table 13. The reference indicates the ETSI specification that contains the definition of the relevant error.

Table 13: Errors using the ETSI object identifier

Error name	Object identifier/globalValue	Reference
	SCF supplementary services scfOID OBJECT IDENTIFIER ::= {itu identified-organization etsi (0) 207 scf-operations-and-errors (2)}	
noScreeningListSpecified	{scfOID 20}	EN 300 207-1 [16]
invalidScreeningListID	{scfOID 21}	EN 300 207-1 [16]
typeOfForwardingNotSpecified	{scfOID 22}	EN 300 207-1 [16]
insufficientInformation	{scfOID 23}	EN 300 207-1 [16]
	CCBS supplementary service, at the S and T reference point cCBSOID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 359 operations-and-errors (1)}	
invalidCallLinkageID	{cCBSOID 20}	EN 300 359-1 [21]
invalidCCBSReference	{cCBSOID 21}	EN 300 359-1 [21]
longTermDenial	{cCBSOID 22}	EN 300 359-1 [21]
shortTermDenial	{cCBSOID 23}	EN 300 359-1 [21]
cCBSIsAlreadyActivated	{cCBSOID 24}	EN 300 359-1 [21]
alreadyAccepted	{cCBSOID 25}	EN 300 359-1 [21]
outgoingCCBSQueueFull	{cCBSOID 26}	EN 300 359-1 [21]
callFailureReasonNotBusy	{cCBSOID 27}	EN 300 359-1 [21]
notReadyForCall	{cCBSOID 28}	EN 300 359-1 [21]
	CCBS supplementary service, at the T reference point cCBS-T-OID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 359 private-network-operations-and-errors (2)}	
longTermDenial	{cCBS-T-OID 20}	EN 300 359-1 [21]
shortTermDenial	{cCBS-T-OID 21}	EN 300 359-1 [21]
	ECT supplementary service eCTOID OBJECT IDENTIFIER ::= {ccitt identified-organization etsi (0) 369 operations-and-errors (1)}	
linkIdNotAssignedByNetwork	{eCTOID linkIdNotAssignedByNetwork (21)}	EN 300 369-1 [24]
	MWI supplementary service mWIOID OBJECT IEDNTIFIER ::= {ccitt identified-organization etsi (0) 745 operations-and-errors (1)}	
invalidReceivingUserNr	{mWIOID 10}	EN 300 745-1 [28]
receivingUserNotSubscribed	{mWIOID 11}	EN 300 745-1 [28]
controllingUserNotRegistered	{mWIOID 12}	EN 300 745-1 [28]
indicationNotDelivered	{mWIOID 13}	EN 300 745-1 [28]
maxNumOfControllingUsersReached	{mWIOID 14}	EN 300 745-1 [28]
maxNumOfActiveInstancesReached	{mWIOID 15}	EN 300 745-1 [28]
	OCB supplementary services oCBOID OBJECT IDENTIFIER::= {ccitt identified-organization etsi (0) 1 001 operations-and-errors (1)}	
invalidBarringProgram	{oCBOID 10}	EN 301 001-1 [29]
noBarringProgram	{oCBOID 11}	EN 301 001-1 [29]

Error name	Object identifier/globalValue	Reference
	Security tools (SET) procedures, PIN procedures	
	pINOID OBJECT IDENTIFIER::=	
	{ccitt identified-organization etsi (0)	
	1 002 operations-and-errors (1)}	
invalidPin	{pINOID 10}	EN 301 002-1 [30]
pinNotProvided	{pINOID 11}	EN 301 002-1 [30]
invalidNewPin	{pINOID 12}	EN 301 002-1 [30]
userControlBlocked	{pINOID 13}	EN 301 002-1 [30]
changeOfPinRequired	{pINOID 14}	EN 301 002-1 [30]
primitivePin	{pINOID 15}	EN 301 002-1 [30]
newPinIsOldPin	{pINOID 16}	EN 301 002-1 [30]
	Security tools (SET) procedures, TAN procedures	
	tANOID OBJECT IDENTIFIER::=	
	{ccitt identified-organization etsi (0)	
	1 002 operations-and-errors (2)}	
invalidTan	{tANOID 10}	EN 301 002-1 [30]
	Mobility management service on alpha interface	
	mMOID OBJECT IDENTIFIER ::=	
	{ccitt identified-organization etsi (0)	
	1 144 operations-and-errors (1)}	
networkRejected	{mMOID 40}	EN 301 144-1 [36]
terminalRejected	{mMOID 41}	EN 301 144-1 [36]
portableIdentityUnknown	{mMOID 42}	EN 301 144-1 [36]
identityNotAvailable	{mMOID 43}	EN 301 144-1 [36]
congestion	{mMOID 44}	EN 301 144-1 [36]
localTimerExpiry	{mMOID 45}	EN 301 144-1 [36]
pagingFailure	{mMOID 46}	EN 301 144-1 [36]
radioConnectionFailure	{mMOID 47}	EN 301 144-1 [36]
incompatibleCipheringState	{mMOID 48}	EN 301 144-1 [36]
priorityRuleViolation	{mMOID 49}	EN 301 144-1 [36]
unspecified	{mMOID 50}	EN 301 144-1 [36]
	LH supplementary service	
	lHOID OBJECT IDENTIFIER ::=	
	{itu-t identified-organization etsi (0)	
	1 484 operations-and-errors (1)}	
withdrawalNotSupported	{lHOID 10}	EN 301 484-1 [38]
withdrawalNotSubscribed	{lHOID 11}	EN 301 484-1 [38]

12   Contents of messages

The matrix contained in tables 14 to 17 shows the relationship between messages and the information elements defined in codeset 0 that each message may carry. The purpose of tables 14 to 17 is only to provide an overview of possible message content but it does not indicate which information element or combinations of information elements are present in a particular message for a specific purpose (e.g. basic call, a certain supplementary service).

Tables 14 to 17 contain only the messages and information elements defined in ETSI specifications.

The information elements are shown in the order of appearance in a message.

Table 14: Call establishment messages and possible information elements

Information elements	Call establishment messages						
	ALERTING	CALL PROC	PROGRESS	SETUP	CONNECT	CONN ACK	SETUP ACK
Protocol discriminator	X	X	X	X	X	X	X
Call reference	X	X	X	X	X	X	X
Message type	X	X	X	X	X	X	X
Shift	X	X	X	X	X	X	X
More data							
Sending complete				X			
Congestion level							
Segmented message							
Bearer capability	X	X	X	X	X		
VPN indicator				X			
Cause			X				
Extended facility	X	X	X	X	X	X	X
Call identity							
Call state							
Channel identification	X	X		X	X	X	X
Facility	X	X	X	X	X	X	X
Progress indicator	X	X	X	X	X		X
Network-specific facilities				X			
Notification indicator	X	X	X	X	X	X	X
Display	X	X	X	X	X	X	X
Date/time				X	X		
Keypad facility				X			
Connected number					X		
Connected subaddress					X		
Calling party number				X			
Calling party subaddress				X			
Called party number				X			
Called party subaddress				X			
Redirecting number				X			
Redirection number	X		X		X		
Transit network selection				X			
Restart indicator							
Low layer compatibility				X	X		
High layer compatibility	X	X	X	X	X		
User-user	X		X	X	X		
Escape for extension							
Transit Counter				X			

Table 15: Call information phase messages and possible information elements

Information elements	USER INFO	SUSPEND REJ	RESUME REJ	HOLD	SUSPEND	RESUME	HOLD ACK	SUSPEND ACK	RESUME ACK	HOLD REJ	RETRIEVE	RETRIEVE ACK	RETRIEVE REJ
Protocol discriminator	X	X	X	X	X	X	X	X	X	X	X	X	X
Call reference	X	X	X	X	X	X	X	X	X	X	X	X	X
Message type	X	X	X	X	X	X	X	X	X	X	X	X	X
Shift	X	X	X	X	X	X	X	X	X	X	X	X	X
More data	X												
Sending complete													
Congestion level													
Segmented message													
Bearer capability													
VPN indicator													
Cause		X	X							X			X
Extended facility	X	X	X	X	X	X	X	X	X	X	X	X	X
Call identity					X	X							
Call state													
Channel identification									X		X	X	
Facility	X	X	X	X	X	X	X	X	X	X	X	X	X
Progress indicator													
Network-specific facilities													
Notification indicator	X	X	X	X	X	X	X	X	X	X	X	X	X
Display		X	X	X			X	X	X	X	X	X	X
Date/time													
Keypad facility													
Connected number													
Connected subaddress													
Calling party number													
Calling party subaddress													
Called party number													
Called party subaddress													
Redirecting number													
Redirection number													
Transit network selection													
Restart indicator													
Low layer compatibility													
High layer compatibility													
User-user	X												
Escape for extension													
Transit counter													

Table 16: Call clearing messages and possible information elements

Information elements	Call clearing messages				
	DISCONNECT	RESTART	RELEASE	RESTART ACK	RELEASE COMP
Protocol discriminator	X	X	X	X	X
Call reference	X	X	X	X	X
Message type	X	X	X	X	X
Shift	X	X	X	X	X
More data					
Sending complete					
Congestion level					
Segmented message					
Bearer capability					
VPN indicator					
Cause	X		X		X
Extended facility	X		X		X
Call identity					
Call state					
Channel identification		X		X	
Facility	X		X		X
Progress indicator	X				
Network-specific facilities					
Notification indicator					
Display	X	X	X	X	X
Date/time					
Keypad facility					
Connected number					
Connected subaddress					
Calling party number					
Calling party subaddress					
Called party number					
Called party subaddress					
Redirecting number					
Redirection number					
Transit network selection					
Restart indicator		X		X	
Low layer compatibility					
High layer compatibility					
User-user	X		X		X
Escape for extension					
Transit counter					

Table 17: Miscellaneous messages and possible information elements

Information elements	SEGMENT	FACILITY	REGISTER	NOTIFY	STATUS ENQ	CONG CONTR	INFORM	STATUS
Protocol discriminator	X	X	X	X	X	X	X	X
Call reference	X	X	X	X	X	X	X	X
Message type	X	X	X	X	X	X	X	X
Shift	NOTE	X	X	X	X	X	X	X
More data								
Sending complete							X	
Congestion level						X		
Segmented message	X							
Bearer capability								
VPN indicator								
Cause						X	X	X
Extended facility		X	X			X	X	
Call identity								
Call state								X
Channel identification								
Facility		X	X			X	X	
Progress indicator								
Network-specific facilities								
Notification indicator		X	X	X		X	X	
Display		X	X	X	X	X	X	X
Date/time								
Keypad facility							X	
Connected number								
Connected subaddress								
Calling party number								
Calling party subaddress								
Called party number		X					X	
Called party subaddress		X						
Redirecting number								
Redirection number				X				
Transit network selection								
Restart indicator								
Low layer compatibility								
High layer compatibility								
User-user								
Escape for extension								
Transit counter								

NOTE: The use of the Shift information element to shift to another codeset for the interpretation of the Segmented message information element is allowed within the protocol, but not recommended unless a bilateral agreement exists between the user and the network regarding the use of the shift procedure in conjunction with the segmentation procedure.

History

Document history		
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