

SCCP ANSI/ITU/TTC/CHINESE ETSI 2001-02

STATEMENT OF COMPLIANCE

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1 General

1.1 Introduction

This document describes to what extent this version of the Ericsson SCCP signaling component complies with the standard Reference [1].

1.2 Terms

DPC	Destination Point Code.
EIN	Ericsson Infotech AB.
ETSI	European Telecommunications Standards Institute.
GT	Global Title.
GTT	Global Title Translation.
ISDN	Integrated Services Digital Network.
ISDN-UP	Integrated Services Digital Network-User Part.
ITU	International Telecommunication Union.
ITU-T	Telecommunication Standardization sector of ITU.
LUDT	Long Unitdata message.
LUOTS	Long Unitdata Service message.
MTP	Message Transfer Part.
MTP-SAP	SAP to access the services provided by MTP.
NSDU	Network Service Data Unit.
PC	Point code.
SAP	Service Access Point
SCCP	Signaling Connection Control Part.
SCMG	SCCP Management.
SMI	Subsystem Multiplicity Indicator.
SOG	Subsystem Out of service Grant.

SOR	Subsystem Out of service Request.
SS7	Signaling Subsystem No.7.
SSN	SubSystem Number.
UDT	Unitdata message.
UDTS	Unitdata Service message.
XUDT	Extended Unitdata message.
XUDTS	Extended Unitdata Service message.

1.3 Concept

The terms that are used are:

C	The Ericsson signaling component complies with the specified section in the standard.
N	The Ericsson signaling component does not comply with the specified section in the standard.
P	The Ericsson signaling component complies partly with the specified section in the standard.
-	There is nothing to implement in the referred section (always placed in column C).



2 Compliance Lists

2.1 Modifications to ITU-T Recommendation Q.711

Table 1 Functional Description of SCCP

References		C	N	P	Comments
1.	Scope and field of application	-			
2.	References	-			
2.1	Normative References	-			
2.2	Informative References	-			
3.	Definitions	-			
3.1		X			
3.2		X			
4.	Abbreviations and acronyms	-			
5.	General characteristic	-			
5.1	Technique of description	X			
5.2	Primitives	X			
5.3	Peer-to-peer communication	X			
5.4	Model of the connection-oriented network service	X			
5.5	Model of the connectionless network service	X			
5.6	Contents of the Q.71x - Series Recommendations	X			
6.	Services provided by the SCCP			X	Note 1
6.1	Connection-oriented services			X	Note 12
6.1.1	Temporary signaling connections	-			
6.1.1.1	Description	X			

Table 1 Functional Description of SCCP

References		C	N	P	Comments
6.1.1.1.1	Connection establishment phase			X	Note 10
6.1.1.1.2	Data transfer phase			X	Note 1
6.1.1.1.3	Connection release phase	X			
6.1.1.2	Network service primitives and parameters	-			
6.1.1.2.1	Overview			X	Note 2, Note 3
6.1.1.2.2	Connection establishment phase			X	Note 3
6.1.1.2.3	Data transfer phase			X	Note 2
6.1.1.2.4	Release phase	X			
6.1.1.3	Additional SCCP primitive and interface elements		X		
6.1.1.3.1	Notice service			X	Note 2, Note 39
6.1.1.3.2	Connection establishment interface elements		X		
6.1.2	Permanent signaling connections	-			
6.1.2.1	Description	-			
6.1.2.2	Primitives and parameters	-			
6.2	Connectionless services	X			
6.2.1	Description	X			
6.2.2	Primitives and parameters of the connectionless service	-			
6.2.2.1	Overview	X			
6.2.2.2	Parameters	-			
6.2.2.2.1	Address	X			
6.2.2.2.2	Sequence control	X			
6.2.2.2.3	Return option	X			
6.2.2.2.4	Reason for return	X			
6.2.2.2.5	User data	X			
6.2.2.2.6	Importance	X			
6.2.2.3	Primitives	-			



Table 1 Functional Description of SCCP

References		C	N	P	Comments
6.2.2.3.1	UNITDATA	X			
6.2.2.3.2	NOTICE	X			
6.2.3	State transition diagram	X			
6.3	SCCP management	-			
6.3.1	Description	X			
6.3.2	Primitives and parameters of the SCCP management	-			
6.3.2.1	Overview			X	Note 4, Note 18
6.3.2.2	Parameters	-			
6.3.2.2.1	Affected subsystem	X			
6.3.2.2.2	User status	X			
6.3.2.2.3	Subsystem multiplicity indicator			X	Note 5
6.3.2.2.4	Affected signaling point			X	Note 4, Note 20
6.3.2.2.5	Signaling point status			X	Note 4, Note 30
6.3.2.2.6	Remote SCCP Status			X	Note 4, Note 31
6.3.2.2.7	Restricted Importance Level			X	Note 4, Note 32
6.3.2.3	Primitives	-			
6.3.2.3.1	COORD		X		Note 4
6.3.2.3.2	STATE			X	Note 18
6.3.2.3.3	PCSTATE			X	Note 4, Note 30, Note 31, Note 32
7.	Definition of the lower boundary of the SCCP	-			
7.1	MTP-SAP	X			
7.2	MTP Primitives and parameters	X			
7.2.1	TRANSFER	X			
7.2.2	PAUSE	X			
7.2.3	RESUME	X			
7.2.4	STATUS	X			
7.2.5	Notification of completion MTP Restart procedure	X			

Table 1 Functional Description of SCCP

References		C	N	P	Comments
7.3	State transition diagram	X			
8.	Functions provided by the SCCP	X			
8.1	Connection-oriented functions	-			
8.1.1	Functions for temporary signaling connections	-			
8.1.1.1	Connection establishment functions			X	Note 1
8.1.1.2	Data transfer phase function			X	Note 6
8.1.1.3	Release phase functions	X			
8.1.2	Functions for permanent signaling connections	-			
8.1.2.1	Connection establishment phase and connection release phase functions	-			
8.1.2.2	Data transfer phase functions	-			
8.2	Connectionless service functions	X			
8.3	Management functions			X	Note 7
8.4	Routing and translation functions	X			

2.2 Modifications to ITU-T Recommendation Q.712

Table 2 Definition and Function of SCCP Messages

References		C	N	P	Comments
1.	Signaling connection control part messages	X			
1.1	Connection confirm (CC)	X			
1.2	Connection request (CR)	X			
1.3	Connection refused (CREF)	X			
1.4	Data acknowledgement (AK)	-			Note 1



Table 2 Definition and Function of SCCP Messages

References		C	N	P	Comments
1.5	Data form 1 (DT1)	X			
1.6	Data form 2 (DT2)	-			Note 1
1.7	Expedited data (ED)	-			Note 1
1.8	Expedited data acknowledgement (EA)	-			Note 1
1.9	Inactivity test (IT)	X			
1.10	Protocol data unit error (ERR)	X			
1.11	Released (RLSD)	X			
1.12	Release complete (RLC)	X			
1.13	Reset confirm (RSC)	-			Note 1
1.14	Reset request (RSR)	-			Note 1
1.15	Subsystem-allowed (SSA)	X			
1.16	Subsystem-out-of-service-grant (SOG)	-			Note 8
1.17	Subsystem-out-of-service-request (SOR)	-			Note 8
1.18	Subsystem-prohibited (SSP)	X			
1.19	Subsystem-status-test (SST)	X			
1.20	Unitdata (UDT)	X			
1.21	Unitdata service (UDTS)	X			
1.22	Extended unitdata (XUDT)	X			
1.23	Extended unitdata service (XUDTS)	X			
1.24	Subsystem congested (SSC)			X	Note 9
1.25	Long unitdata (LUDT)			X	Note 13
1.26	Long unitdata service (LUDTS)			X	Note 25
2.	SCCP parameter	-			
2.1	Affected point code	X			
2.2	Affected subsystem number	X			

Table 2 Definition and Function of SCCP Messages

References		C	N	P	Comments
2.3	Calling or called party address	X			
2.4	Credit			X	Note 27
2.5	Data	X			
2.6	Diagnostic	-			
2.7	Error cause	X			
2.8	End of optional parameters	X			
2.9	Local reference number (source and destination)	X			
2.10	Protocol class	X			
2.11	Receive sequence number	-			Note 27
2.12	Refusal cause	X			
2.13	Release cause	X			
2.14	Reset cause	-			Note 27
2.15	Return cause	X			
2.16	Segmenting/reassembling	X			
2.17	Sequencing/segmenting	-			Note 27
2.18	Subsystem multiplicity indicator	X			
2.19	Hop counter	X			
2.20	Segmentation	X			
2.21	Importance	X			
2.22	Congestion level	X			
2.23	Long data	X			
3.	Inclusion of fields in the messages			X	Note 23
4.	References	-			
4.1	Normative References	-			
4.2	Informative References	-			



2.3 ITU-T Q.713, SCCP Formats and Codes

Table 3 SCCP Formats and Codes

References		C	N	P	Comments
1.	General	X			
1.1	Message type code	X			
1.2	Formatting principles	X			
1.3	Mandatory fixed part	X			
1.4	Mandatory variable part	X			
1.5	Optional part	X			
1.6	End of optional parameters octet	X			
1.7	Order of transmission	X			
1.8	Coding of spare bits	X			
1.9	National message types and parameters	X			
1.10	International message types and parameters	X			
2.	Coding of the general parts	-			
2.1	Coding of the message type	X			Note 1
2.2	Coding of the length indicator	X			
2.3	Coding of the pointers	X			
3.	SCCP parameters	-			
3.1	End of optional parameters	X			
3.2	Destination local reference	X			
3.3	Source local reference	X			
3.4	Called party address	X			
3.4.1	Address indicator	X			
3.4.2	Address	X			
3.4.2.1	Signaling point code	X			
3.4.2.2	Subsystem number	X			
3.4.2.3	Global title	X			
3.4.2.3.1	Global title indicator = 0001	X			Note 28
3.4.2.3.2	Global title indicator = 0010	X			Note 28
3.4.2.3.3	Global title indicator = 0011	X			Note 28

Table 3 SCCP Formats and Codes

References		C	N	P	Comments
3.4.2.3.4	Global title indicator = 0100	X			
3.5	Calling party address	X			
3.6	Protocol class	X			Note 1
3.7	Segmenting and reassembling	X			
3.8	Receive sequence number	-			Note 27
3.9	Sequencing and segmenting	-			Note 27
3.10	Credit	-			Note 27
3.11	Release cause	X			
3.12	Return cause	X			
3.13	Reset cause	-			Note 27
3.14	Error cause	X			
3.15	Refusal cause	X			
3.16	Data	X			
3.17	Segmentation	X			
3.18	Hop counter	X			
3.19	Importance	X			
3.20	Long data	X			
4.	SCCP messages and codes	-			
4.1	General	-			
4.1.1		—			
4.1.2		—			
4.1.3		—			
4.1.4		—			
4.2	Connection request (CR)	X			
4.3	Connection confirm (CC)	X			
4.4	Connection refused (CREF)	X			
4.5	Released (RLSD)	X			
4.6	Release complete (RLC)	X			
4.7	Data form 1 (DT1)	X			
4.8	Data form 2 (DT2)	-			Note 27
4.9	Data acknowledgement (AK)	-			Note 27



Table 3 SCCP Formats and Codes

References		C	N	P	Comments
4.10	Unitdata (UDT)	X			
4.11	Unitdata service (UDTS)	X			
4.12	Expedited data (ED)	-			Note 27
4.13	Expedited data acknowledgement (EA)	-			Note 27
4.14	Reset request (RSR)	-			Note 27
4.15	Reset confirm (RSC)	-			Note 27
4.16	Protocol data unit error (ERR)	X			
4.17	Inactivity test (IT)	X			
4.18	Extended unitdata (XUDT)			X	Note 34
4.19	Extended unitdata service (XUDTS)	X			
4.20	Long unitdata (LUDT)			X	Note 13
4.21	Long unitdata service (LUDTS)	X			Note 25
5.	SCCP Management messages and codes	-			
5.1	General	X			
5.1.1	SCMG format identifier	X			Note 8
5.1.2	Formatting principles	X			
5.2	SCMG message parameters	X			
5.2.1	Affected SSN	X			
5.2.2	Affected PC	X			
5.2.3	Subsystem multiplicity indicator	X			
5.2.4	SCCP congestion level	X			
5.3	SCMG messages	X			
6.	References	-			
6.1	Normative References	-			
6.2	Informative References	-			
Annex A:		-			
A.1	Introduction			X	Note 2
A.2	Connection refusal	X			

Table 3 SCCP Formats and Codes

References		C	N	P	Comments
A.3	Connection release	X			
A.4	Connection reset		X		
A.5	Return cause	X			
Annex B:		-			
B.1	Introduction	X			
B.2	Guidelines on using SCCP addressing information elements in the international network	X			Note 8
B.3	GT routing specification of international services			X	Note 10
B.4	International GT routing specification	-			
B.4.1	Translation selector: TT=17, NP=1, NAI=4	X			
B4.1.1	Format of address indicator and address	X			
B4.1.2	Translation rules		X		
B4.2	Translation selector: TT=1, NP=0, NAI=4	X			
B4.2.1	Format of address indicator and address	X			
B4.2.2	Translation rules		X		
B4.3	Translation selector: TT=2, NP=2, NAI=4	X			
B4.3.1	Format of address indicator and address	X			
B4.3.2	Translation rules		X		
B4.4	Translation selector: TT=0, NP=1, NAI=4	X			
B4.4.1	Format of address indicator and address	X			
B4.4.2	Translation rules		X		
B4.5	Translation selector: TT=3, NP=1, NAI=4	X			



Table 3 SCCP Formats and Codes

References		C	N	P	Comments
B4.5.1	Format of address indicator and address	X			
B4.5.2	Translation rules		X		

2.4 Modifications to ITU-T Recommendation Q.714

Table 4 SCCP Procedures

References		C	N	P	Comments
1.	Introduction	-			
1.1	General characteristics of signaling connection control procedures	-			
1.1.1	Purpose	X			
1.1.2	Protocol classes	X			Note 1
1.1.2.1	Protocol class 0	X			
1.1.2.2	Protocol class 1	X			
1.1.2.3	Protocol class 2	X			
1.1.2.4	Protocol class 3	-			Note 1
1.1.3	Signaling connections			X	Note 22
1.1.4	Compatibility and handling of unrecognized information	-			
1.1.4.1	Rules for forward compatibility	X			
1.1.4.2	Handling of unrecognized messages or parameters	X			
1.1.4.3	Handling of non-mandatory, unsupported parameter values	X			
1.1.4.4	Treatment of spare fields	X			
1.1.4.5	Handling of gaps	X			
1.2	Overview of procedures for connection-oriented services	-			
1.2.1	Connection establishment			X	Note 22
1.2.2	Data transfer	X			Note 1

Table 4 SCCP Procedures

References		C	N	P	Comments
1.2.3	Connection release	X			
1.3	Overview of procedures for connectionless services	-			
1.3.1	General			X	Note 13
1.3.2	Segmentation and reassembly	X			
1.4	Structure of the SCCP and contents of specification			X	Note 1, Note 4, Note 7, Note 8, Note 10
2.	Addressing and routing	-			
2.1	SCCP addressing	X			
2.2	SCCP routing principles	X			
2.2.1	Receipt of SCCP message transferred by a MTP	X			
2.2.2	Messages from connection-oriented or connectionless control to SCCP routing control	X			
2.2.2.1	DPC present	X			
2.2.2.2	DPC not present	X			
2.3	SCCP routing	X			
2.3.1	Receipt of SCCP message transferred by the MTP			X	Note 22
2.3.2	Messages from connectionless or connection-oriented control to SCCP routing control	X			
2.4	Global Title Translation	-			
2.4.1	General characteristics of the GTT	X			
2.4.2	Terminology definitions	-			
2.4.2.1	GT information	X			
2.4.2.2	Other definitions used in the GTT function	X			
2.4.3	Input of the GTT function	-			
2.4.3.1	Local information (mandatory input)	X			



Table 4 SCCP Procedures

References		C	N	P	Comments
2.4.3.2	GT information (mandatory input)	X			
2.4.3.3	SSN (mandatory input if present)	X			
2.4.3.4	Loadsharing information	X			
2.4.4	Output of the GTT function	X			
2.4.5	Global title translation function	X			
2.5	Compatibility test			X	Note 14
2.6	Traffic limitation mechanism	-			
2.6.1	General	X			
2.6.2	Importance of a message			X	Note 33
2.6.3	Handling of messages to a congested node			X	Note 2, Note 34, Note 36
2.7	Calling party address treatment	-			
2.7.1	Address indicator	X			
2.7.2	Calling party address in the international network	X			
2.7.3	Routing indicator	X			
2.7.4	Screening			X	Note 38
2.7.5	Inclusion of OPC in the calling party address	-			
2.7.5.1	LUDT or XUDT or UDT message	X			
2.7.5.2	CR message			X	Note 22
2.8	Routing failures	X			
2.8.1	No translation for an address of such nature	X			
2.8.2	No translation for this specific address	X			
2.8.3	MTP and SCCP and subsystem failure	X			
2.8.4	MTP and SCCP and system congestion	X			
2.8.5	Unequipped user	X			

Table 4 SCCP Procedures

References		C	N	P	Comments
2.8.6	Hop counter violation	X			
3.	Connection-oriented procedures	-			
3.1	Connection establishment	-			
3.1.1	General	X			Note 10
3.1.2	Local reference numbers	X			
3.1.3	Negotiation procedures	-			
3.1.3.1	Protocol class negotiation	X			
3.1.3.2	Flow control credit negotiation	-			Note 27
3.1.4	Actions at the origination node	-			
3.1.4.1	Initial actions	X			Note 1, Note 10
3.1.4.2	Subsequent actions	X			Note 1
3.1.5	Actions at a relay node with coupling	-			
3.1.5.1	Initial actions	X			Note 1, Note 10
3.1.5.2	Subsequent actions	X			Note 1
3.1.6	Actions at destination node	-			
3.1.6.1	Initial actions	X			Note 1, Note 10
3.1.6.2	Subsequent actions	X			Note 1
3.2	Connection refusal	-			
3.2.1	Actions at node initiating connection refusal			X	Note 10
3.2.1.1	Initiating connection refusal at the destination node			X	Note 10 Note 40
3.2.1.2	Initiating connection refusal at the relay node			X	Note 10 Note 40
3.2.1.3	Initiating connection refusal at the originating node	X			
3.2.2	Actions at relay node not initiating connection refusal			X	Note 10 Note 40



Table 4 SCCP Procedures

References		C	N	P	Comments
3.2.3	Actions at the origination node not initiating connection refusal	X			
3.3	Connection release	-			
3.3.1	General	X			
3.3.2	Frozen reference	X			
3.3.3	Actions at an end node initiating connection release	-			
3.3.3.1	Initial actions	X			
3.3.3.2	Subsequent actions			X	Note 11
3.3.4	Actions at a relay node	X			
3.3.4.1	Initial actions	X			Note 10
3.3.4.2	Subsequent actions			X	Note 11
3.3.5	Actions at an end node not initiating connection release	X			
3.4	Inactivity control	X			Note 12
3.5	Data transfer	-			
3.5.1	General	X			Note 12
3.5.1.1	Actions at the originating node	X			
3.5.1.2	Actions at a relay node	X			Note 1
3.5.1.3	Actions at the destination node	X			
3.5.2	Flow control	-			Note 1
3.5.2.1	General	-			Note 1
3.5.2.2	Sequence numbering	-			Note 1
3.5.2.3	Flow control window	-			Note 1
3.5.2.4	Flow control procedures	-			Note 1
3.5.2.4.1	Transfer of DT2 messages	-			Note 1
3.5.2.4.2	Transfer of AK messages	-			Note 1
3.5.2.4.3	Reception of a Data or AK message	-			Note 1
3.5.3	Segmenting and reassembly	X			
3.6	Expedited data transfer	-			Note 27

Table 4 SCCP Procedures

References		C	N	P	Comments
3.6.1	General	-			Note 27
3.6.2	Actions at the originating node	-			Note 27
3.6.3	Actions at a relay node	-			Note 27
3.6.4	Actions at destination node	-			Note 27
3.7	Reset	-			Note 27
3.7.1	General	-			Note 27
3.7.2	Action at the initiating node	-			Note 27
3.7.2.1	Initial actions	-			Note 27
3.7.2.2	Subsequent actions	-			Note 27
3.7.3	Actions at a relay node	-			Note 27
3.7.3.1	Initial actions	-			Note 27
3.7.3.2	Subsequent actions	-			Note 27
3.7.4	Actions at an end node not initiating the reset procedure	-			Note 27
3.7.5	Handling of messages during the reset procedures	-			Note 27
3.8	Restart	-			
3.8.1	General	X			
3.8.2	Actions at the recovered node	-			
3.8.2.1	Initial actions	X			Note 12, Note 16
3.8.2.2	Subsequent actions	X			Note 16
3.8.3	Actions at the non-failed far end node	X			
3.8.3.1	Permanent signaling connections	-			Note 12
3.8.3.2	Abnormalities	-			
3.8.3.3	General	X			
3.8.4	Syntax error	X			
3.8.5	Action tables	X			Note 1
3.8.6	Actions upon the reception of an ERR message	X			
4.	Connectionless procedures			X	Note 13



Table 4 SCCP Procedures

References		C	N	P	Comments
4.1	Data transfer			X	Note 13
4.1.1	Segmentation/reassembly	-			
4.1.1.1	Segmentation	-			
4.1.1.1.1	General	X			
4.1.1.1.2	Normal procedures	X			
4.1.1.1.3	Message return procedure	X			
4.1.1.1.3.1	Segmentation not supported	X			
4.1.1.1.3.2	Segmentation failed	X			
4.1.1.2	Reassembly	-			
4.1.1.2.1	General	X			
4.1.1.2.2	Normal procedures	X			
4.1.1.2.3	Message return procedure	X			
4.1.1.2.3.1	Destination cannot perform reassembly	X			
4.1.1.2.3.2	Error in message transport	X			
4.1.1.2.3.3	Error in local processing	X			
4.1.1.2.3.4	No buffer space to perform reassembly	X			
4.1.2	Message change			X	Note 17
4.2	Message return procedure	X			
4.3	Syntax error	X			
5.	SCCP management procedures	-			
5.1	General	X			
5.2	Signaling point status management	-			
5.2.1	General	X			
5.2.2	Signaling point prohibited	X			
5.2.3	Signaling point allowed	X			Note 21
5.2.4	Signaling point congested			X	Note 37
5.2.5	Local MTP network availability	X			Note 21
5.2.6	Local MTP network unavailability	-			

Table 4 SCCP Procedures

References		C	N	P	Comments
5.2.7	SCCP reports of SCCP and nodal congestion			X	Note 9
5.2.7.1	Actions in the congested SCCP node		X		
5.2.7.2	Actions in a relay node or originating node	X			Note 9
5.2.8	Inter- and Intra- SCMG congestion reports procedure			X	Note 32
5.3	Subsystem status management	-			
5.3.1	General	X			
5.3.2	Subsystem prohibited	X			
5.3.2.1	Receipt of messages for a prohibited subsystem (response method)	X			
5.3.2.2	Receipt of subsystem prohibited message or N-STATE REQUEST primitive or local user failed			X	Note 18
5.3.3	Subsystem allowed			X	Note 18
5.3.4	Subsystem status test	-			
5.3.4.1	General	X			
5.3.4.2	Actions at the initiating node	X			
5.3.4.3	Actions at the receiving node	X			
5.3.5	Coordinated state change	-			
5.3.5.1	General		X		
5.3.5.2	Actions at the requesting node		X		
5.3.5.3	Actions at the requested node		X		
5.3.6	Local broadcast	-			
5.3.6.1	General	X			Note 18
5.3.6.2	User-out-of-service			X	Note 18, Note 19
5.3.6.3	User-in-service			X	Note 18, Note 19



Table 4 SCCP Procedures

References		C	N	P	Comments
5.3.6.4	Signaling point inaccessible			X	Note 18, Note 30, Note 31
5.3.6.5	Signaling point remote SCCP accessible			X	Note 18, Note 30, Note 31
5.3.6.6	Restricted importance level reporting			X	Note 18, Note 32
5.3.7	Broadcast	-			
5.3.7.1	General	X			
5.3.7.2	Subsystem prohibited			X	Note 19
5.3.7.3	Subsystem allowed			X	Note 19
5.4	MTP and SCMG restart	X			Note 21
6.	References	-			
6.1	Normative References	-			
6.2	Informative References	-			
Annex A		-			
A.1	Introduction	-			
A.2	Symbol definition of the state diagrams at the message interface	X			
A.3	Symbol definition of the state diagrams	X			Note 1, Note 10
Annex B				X	Note 29
B.1	Introduction	-			
B.2	Symbol definition of the action tables	X			
B.3	Table of contents	X			Note 1, Note 10
Annex C		-			
C.1	General	-			
C.2	Drafting conventions	-			
C.3	Figures	-			
C.4	Abbreviations and timers			X	Note 11
Annex D		-			
D.1	General	-			
D.2	Drafting conventions	-			

*Table 4 SCCP Procedures*

References		C	N	P	Comments
D.3	Figures	-			
D.4	Abbreviations and timers			X	Note 15



3 Annex ZA (Normative): Compatibility Issues

Table 5 SCCP Procedures

References	C	N	P	Comments
ZA.1 Segmentation/Reassembly of connectionless messages	-			Note 24
ZA.2 Introduction of SCCP into national networks.	-			Note 26





4 Notes and Comments

- Note 1** Class 3 is not in the scope of the European Telecommunication Standard (flow controlled connection).
- Note 2** N-INFORM request, N-EXPEDITED-DATA and N-RESET not supported.
- Note 3** The parameter “Expedited data selection ” not supported.
- Note 4** N_COORD and N_PCSTATE are not supported. Parts of the N-PCSTATE functionality is implemented using the N-STATE Indication. For compliance refer to the following sub-clauses.
- Note 5** SMI is a configurable parameter in the SCCP configuration file. SMI is a reserved parameter international network and should be set to 0 in the configuration if the SCCP is configured for an international network.
- Note 6** The parameters: Flow control, NSDU delimiting, Expedited data, Missequence detection and Reset are not implemented.
- Note 7** Coordinated state change is not valid in ETSI standard.
- Note 8** SOR and SOG messages are not valid in ETSI standard.
- Note 9** SSC messages are never sent but reception of SSC is supported.
- Note 10** ISDN-UP connections are not valid in ETSI standard.
- Note 11** T(int) and T(repeat rel) not supported.
- Note 12** Permanent signaling connections are not valid in ETSI standard.
- Note 13** Only reception of LUDT messages are supported. If a LUDT message is received in a SRP flow the message will be relayed in one or several XUDT(s) using the SCCP segmentation procedures.
- Note 14** A LUDTS message is never truncated.
- Note 15** T(coord chg) and T(ignore SST) are not supported.

- Note 16** The usage of the T(guard) timer is a configurable option. If T(guard) is used it will not be started if the functionality to set connection state upon node recovery is used. As a recommended alternative to the timer a restart counter has been implemented that assure that local reference numbers are not re-used after a node recovery. The restart counter does not have the time penalty inherent with T(guard) upon a node recovery.
- Note 17** Supports the format conversion LUDT => XUDT.
- Note 18** Concerned subsystems at remote SCCP signaling points are configured per local signaling point, hence all local subsystem at given local SCCP signaling point are considered to be concerned when the local broadcast procedure is initiated.
- Note 19** The proprietary N_BIND_req and N_UNBIND_req used to implement behavior of N-STATE Request.
- Note 20** The 'Affected Point Code' is included as a part of the N-STATE which is used instead of the PC-STATE for signaling point status and remote SCCP status. Refer to Note 30, Note 31 and Note 32.
- Note 21** A It is a configurable option if all remote SSN shall be considered allowed at the reception of a MTP-RESUME indication or if the subsystem shall be marked prohibited and subsystem test procedure should be used to audit the remote subsystem state.
- Note 22** Connection oriented relay point without coupling is not supported.
- Note 23** The SCCP are only compliant with Table 1 and Table 2 for supported messages and parameters according to this statement of compliance for clause 1 and 2 of Q.712.
- Note 24** XUDT and XUDTS messages are fully supported.
- Note 25** LUDTS messages may only be sent as a response to a received LUDT. Reception of LUDTS is not supported.
- Note 26** Introduces no new requirements. Refer to clause 3 in Section 2.4 (Q.714) for a detailed description of what is supported in terms of connection-oriented procedures.
- Note 27** Not valid in ETSI standard.
- Note 28** Implemented but should not be used according to ETSI standard.



- Note 29** Receipt of IT message with Unassigned destination LRN will be discarded as according to ITU-T.
- Note 30** N_STATE with SSN=1 used instead of N_PCSTATE to inform the upper layer of the 'signaling Point Status'.
- Note 31** N_STATE with SSN=1 used instead of N_PCSTATE to inform the upper layer of the 'Remote SCCP status'. The values remote SCCP unavailable, unequipped and inaccessible are all mapped to a congestion level (value 0-3) that is presented in the User Status parameter of the N_STATE primitive.
- Note 32** N_STATE with SSN=1 used instead of N_PCSTATE to inform the upper layer. The 'Restricted Importance Level' is not presented to the upper layer. Instead a congestion level (value 0-3) is presented in the User status parameter of the N_STATE primitive. The congestion level is determined using T(attack) and T(decay) and restriction level (RL) and restriction sublevel (RSL).
- Note 33** Mapping between importance parameter in SCCP messages and message priority in SIO for gateway (relay point) between international and national networks are not supported. Only the priority field of the SIO is used. However mapping between SIO and Importance is implemented for relay between ETSI and ANSI.
- Note 34** The importance parameter is not included in CL messages sent by the upper layer i.e SCCP user. The value from SCCP user is recalculated to a priority value used in the SIO of the MTP-TRANSFER to lower layer.
- Note 35** Default values in Table 2 are only used for messages initiated by SCCP itself (e.g. RLSD, CREF, ERR, IT and UDT (SST, SSA, SSP, SSC)).
- Note 36** N_DISCONNECT_ind is used to inform the user of discarded CR messages.
- Note 37** The values for M and N are not administrable in this implementation. M is set to 4 and N to 8
- Note 38** Restrictions on GT subparts combinations are not included in International screening functionality.
- Note 39** SCCP does not support "network service user failure" reason, "network service user congestion" reason and QOS-related reasons in N_INFORM indication..



Note 40

When the first attempt to send CREF message is failed, SCCP uses the timer T(ConnRefused) and the hard-coded number of attempts (equal to 5) to resend CREF message.



Reference List

ITU Standards:

- [1] *ETSI EN 300 009-1 v1.4.3, signaling System No.7 SCCP (connectionless and connection-orientated) to support international interconnection Part 1: Protocol specification [ITU Recommendations Q.711 to Q.716, modified], 2001-02.*