



SLOVENSKI STANDARD
SIST EN 302 406 V7.1.1:2003
01-december-2003

8 [[[HJb]`W] b]`h`Y_ca i b]_UW`g_]`g]ghYa `fZuU&ZL`E; GA `g]ghYa `VfYnj fj] bY
h`Yz`b]`Y`f`HGL`E: UhU`%E`GdYWZ]_UW`UfYh`Y`d`Ugh]`fUX]`g_Y[Uj a Ygb]_U7 HG
f] GA `\$(`) * žfUh`]WU+`%`%`z]nXUU`% - , Ł

Digital cellular telecommunications system (Phase 2+) (GSM); GSM Cordless Telephony System (CTS), Phase 1; CTS radio interface layer 3 specification (GSM 04.56 version 7.1.1 Release 1998)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>

Ta slovenski standard je istoveten z: **EN 302 406 Version 7.1.1**

ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
-----------	---	--

SIST EN 302 406 V7.1.1:2003 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 302 406 V7.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4f1a-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4f1a-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>

ETSI EN 302 406 V7.1.1 (2000-08)

European Standard (Telecommunications series)

**Digital cellular telecommunications system (Phase 2+);
GSM Cordless Telephony System (CTS), Phase 1;
CTS radio interface layer 3 specification
(GSM 04.56 version 7.1.1 Release 1998)**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

GSM®

GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

[SIST EN 302 406 V7.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4f1a-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4f1a-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>



Reference

DEN/SMG-030456Q7

Keywords

Digital cellular telecommunications system,
Global System for Mobile communications
(GSM), GSM Cordless Telephony System (CTS)

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 302 406 V7.1.1:2003

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at <http://www.etsi.org/tb/status/>

If you find errors in the present document, send your comment to:
editor@etsi.fr

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2000.
All rights reserved.

Contents

Intellectual Property Rights	9
Foreword.....	9
1 Scope	10
1.1 Scope of the Technical Specification	10
1.2 Application to the interface structures	10
1.3 Structure of layer 3 procedures.....	10
1.4 Test procedures	10
1.5 Use of logical channels.....	10
1.6 Overview of control procedures	11
1.6.1 List of procedures	11
1.7 Applicability of implementations	12
2 References	12
3 Definitions, abbreviations and Random values	16
3.1 Definitions	16
3.2 Abbreviations	16
3.3 Random values	16
4 Overview/General	16
4.1 Overview	16
4.1.1 General.....	16
4.1.2 Services provided to upper layers.....	16
4.1.2.1 CTS-Idle mode	17
4.1.2.2 Dedicated mode.....	17
4.1.3 Services required from data link and physical layers.....	17
4.1.4 Change of dedicated channels.....	17
4.1.4.1 Change of dedicated channels using SAPI = 0.....	17
4.1.4.2 Change of dedicated channels using other SAPIs than 0.....	18
4.1.4.3 Sequenced message transfer operation.....	18
4.1.4.3.1 Variables and sequence numbers.....	18
4.1.4.3.1.1 Send state variable V(SD).....	18
4.1.4.3.1.2 Send sequence number N(SD).....	18
4.1.4.3.2 Procedures for the initiation, transfer execution and termination of the sequenced message transfer operation.....	18
4.1.4.3.2.1 Initiation.....	18
4.1.4.3.2.2 Transfer Execution.....	19
4.1.4.3.2.3 Termination.....	19
4.1.5 Procedure for Service Request and Contention Resolution	19
4.2 Idle mode procedures	19
4.2.1 Mobile Station side	19
4.2.1.1 CTSBCH and CTSPCH monitoring.....	19
4.2.1.2 Alive check response.....	19
4.2.2 CTS-FP side.....	20
4.2.2.1 CTSBCH information broadcasting	20
4.2.2.2 CTSPCH information broadcasting	20
4.2.2.3 Alive check	20
4.2.2.4 Hunting	21
4.2.2.5 Connectionless group alerting.....	21
4.2.2.5a CTS system information broadcasting	23
4.3 RR connection establishment	23
4.3.1 RR connection establishment initiated by the mobile station	23
4.3.1.1 Entering the dedicated mode: immediate assignment procedure	23
4.3.1.1.1 Permission to access the CTS-FP	24
4.3.1.1.2 Initiation of the immediate assignment procedure.....	24
4.3.1.1.3 Answer from the CTS-FP	24
4.3.1.1.3.1 On receipt of a CTS ACCESS REQUEST message.....	24

4.3.1.1.3.2	Assignment rejection	24
4.3.1.1.4	Assignment completion	24
4.3.1.1.4.1	Early classmark sending	25
4.3.1.1.5	Abnormal cases	25
4.3.2	Paging procedure for RR connection establishment	25
4.3.2.1	Paging initiation by the CTS-FP	25
4.3.2.2	Paging response.....	25
4.3.2.3	Abnormal cases	25
4.4	Procedures in dedicated mode	26
4.4.1	SACCH procedures.....	26
4.4.1.1	General	26
4.4.1.2	Measurement report	26
4.4.2	Transfer of messages and link layer service provision	26
4.4.3	Intracell handover procedure	27
4.4.3.1	Intracell handover initiation	27
4.4.3.2	Intracell handover completion.....	27
4.4.3.3	Abnormal cases	27
4.4.4	Intercell handover procedure	28
4.4.5	Frequency hopping definition procedure	28
4.4.6	Channel mode modify procedure	28
4.4.6.1	Normal channel mode modify procedure	28
4.4.6.1.1	Initiation of the channel mode modify procedure.....	28
4.4.6.1.2	Completion of channel mode modify procedure	28
4.4.6.1.3	Abnormal cases	28
4.4.7	Ciphering mode setting procedure	29
4.4.7.1	Ciphering mode setting initiation.....	29
4.4.7.2	Ciphering mode setting completion.....	29
4.4.8	[Reserved: Additional channel assignment procedure].....	29
4.4.9	[Reserved: Partial channel release procedure].....	29
4.4.10	Classmark change procedure	30
4.4.11	Classmark interrogation procedure	30
4.4.12	[Reserved].....	30
4.4.13	RR connection release procedure.....	30
4.4.13.1	Normal release procedure.....	30
4.4.13.1.1	Channel release procedure initiation	30
4.4.13.1.2	Abnormal case.....	30
4.4.13.2	Radio link failure in dedicated mode	30
4.4.13.2.1	Mobile side	31
4.4.13.2.2	CTS-FP side	31
4.4.13.3	RR connection abortion in dedicated mode	31
4.4.14	Receiving CTS RR STATUS message by a CTS-RR entity.	31
4.4.15	CTS RR parameters update.....	31
5	Elementary procedures for Mobility Management.....	32
5.1	General	32
5.1.1	Type of CTS-MM procedures.....	32
5.1.2	CTS-MM sublayer states	33
5.1.2.1	CTS-MM sublayer states in the mobile station	33
5.1.2.1.1	Main states.....	33
5.1.2.1.2	Substates of the CTS-MM IDLE state.....	33
5.1.2.2	CTS-MM sublayer states in the fixed part	33
5.2	CTS-MM common procedures.....	34
5.2.1	CTS detach procedure.....	34
5.2.1.1	CTS detach initiation by the mobile station	34
5.2.1.2	CTS detach procedure in the fixed part.....	34
5.2.1.3	CTS detach completion by the mobile station.....	34
5.2.1.4	Abnormal cases	34
5.2.2	CTS de-enrolment procedure.....	34
5.2.2.1	CTS de-enrolment initiation by the fixed part.....	35
5.2.2.2	CTS de-enrolment procedure in the mobile station.....	35
5.2.2.3	Abnormal cases	35
5.2.3	CTS mutual authentication procedure.....	35

5.2.3.1	CTS authentication initiation by the fixed part	35
5.2.3.2	CTS authentication response by the mobile station	35
5.2.3.3	CTS authentication processing by the fixed part.....	36
5.2.3.4	CTS authentication completion by the mobile station	36
5.2.3.5	Unsuccessful authentication.....	36
5.2.3.6	Abnormal cases	36
5.2.4	CTSMSI update procedure	36
5.2.4.1	CTSMSI update initiation by the fixed part.....	37
5.2.4.2	CTSMSI update response by the mobile station	37
5.2.4.3	CTSMSI update completion in the fixed part	37
5.2.4.4	Abnormal cases	37
5.3	CTS-MM specific procedures	37
5.3.1	CTS enrolment procedure.....	37
5.3.1.1	CTS enrolment initiation by the mobile station	38
5.3.1.2	CTS enrolment completion by the fixed part	38
5.3.1.3	CTS enrolment completion by the mobile station.....	38
5.3.1.4	Unsuccessful enrolment	38
5.3.1.5	Abnormal cases	38
5.3.2	CTS attach procedure.....	38
5.3.2.1	CTS attach initiation by the mobile station	38
5.3.2.2	CTS attach completion by the fixed part.....	38
5.3.2.3	CTS attach completion by the mobile station	39
5.3.2.4	CTS attach rejection treatment by the mobile station	39
5.3.2.5	Abnormal cases	39
5.3.3	CTS re-attach procedure	39
5.3.3.1	CTS re-attach initiation by the mobile station.....	39
5.3.3.2	CTS re-attach completion by the fixed part	39
5.3.3.3	Abnormal cases	40
5.3.4	CTS periodic attach update procedure	40
5.3.4.1	CTS periodic attach update procedure behaviour in the fixed part	40
5.3.4.2	Abnormal cases	40
6	Elementary procedures for circuit-switched Call Control	40
6.1	Overview	40
6.1.1	General.....	40
6.2	Hook flash procedure	41
6.2.1	Hook flash request by the mobile station.....	41
6.2.2	Hook flash response by the fixed part.....	41
6.2.3	Stop hook flash request by the mobile station	41
6.2.4	Stop hook flash response by fixed part	41
6.3	Internal call procedure.....	41
7	Examples of structured procedures	41
7.1	General	41
7.1.1	CTS paging request.....	42
7.1.2	CTS immediate assignment	42
7.1.3	CTS mutual authentication	42
7.2	Abnormal cases	42
7.3	Selected examples	42
7.3.1	Enrolment	43
7.3.1.1	Enrolment with CTS-MS identity authentication done only by the CTS-FP	43
7.3.1.2	Enrolment with CTS MS authentication done by CTS operator	44
7.3.2	Attachment.....	44
7.3.3	Detachment	45
7.3.4	De-enrolment	46
7.3.5	Mobile originating call establishment.....	46
8	Handling of unknown, unforeseen, and erroneous protocol data	47
8.1	General	47
8.2	Message too short.....	48
8.3	Unknown or unforeseen transaction identifier	48
8.4	Unknown or unforeseen message type	48
8.5	Non-semantical mandatory information element errors	49

8.5.1	Radio resource management	49
8.5.2	Mobility management	49
8.5.3	Call control	49
8.6	Unknown and unforeseen IEs in the non-imperative message part	50
8.6.1	IEs unknown in the message	50
8.6.2	Out of sequence IEs	50
8.6.3	Repeated IEs	50
8.7	Non-imperative message part errors	50
8.7.1	Syntactically incorrect optional IEs	50
8.7.2	Conditional IE errors	50
8.8	Messages with semantically incorrect contents	51
9	Message functional definitions and contents	51
9.1	Messages for Radio Resources management	52
9.1.1	CTS access request	52
9.1.2	CTS AFA monitoring command	53
9.1.3	CTS AFA monitoring enquiry	53
9.1.4	CTS AFA monitoring report	54
9.1.5	CTS BCCH detection command	54
9.1.6	CTS BCCH detection enquiry	54
9.1.7	CTS BCCH detection report	55
9.1.8	CTS beacon channel synchronisation burst information	55
9.1.9	CTS channel mode modify	56
9.1.10	CTS channel mode modify acknowledge	56
9.1.11	CTS channel release	56
9.1.12	CTS ciphering mode command	57
9.1.13	CTS ciphering mode complete	57
9.1.14	CTS classmark change	58
9.1.15	CTS classmark enquiry	58
9.1.16	CTS frequency hopping definition	58
9.1.16.1	Reference time	58
9.1.17	CTS group alerting request	58
9.1.17.1	Rest Octets	59
9.1.18	CTS hunting request	59
9.1.18.1	Rest Octets	59
9.1.19	CTS immediate assignment	60
9.1.20	CTS immediate assignment extended	60
9.1.21	CTS immediate assignment reject	61
9.1.21.1	Use of Indexes	62
9.1.21.2	Filling of the message	62
9.1.22	CTS intracell handover command	62
9.1.23	CTS intracell handover complete	63
9.1.24	CTS intracell handover failure	63
9.1.25	CTS measurement report	64
9.1.25.1	Measurement results	64
9.1.26	CTS OFO measurement command	64
9.1.27	CTS OFO measurement enquiry	65
9.1.28	CTS OFO Measurement report	65
9.1.29	CTS paging request	65
9.1.29.1	Paging type	66
9.1.30	CTS paging response	66
9.1.30.1	Ciphering Key Sequence	67
9.1.31	CTS system information type 1	67
9.1.31.1	Starting Time	67
9.1.32	CTS system information type 2	68
9.1.33	CTS system information type 3	68
9.1.34	CTS RR parameters update	68
9.2	Messages for mobility management	70
9.2.1	CTS attach request	70
9.2.2	CTS attach accept	70
9.2.3	CTS attach reject	71
9.2.4	CTS detachment indication	71

9.2.5	CTS enrolment request	72
9.2.6	CTS enrolment accept.....	72
9.2.7	CTS enrolment reject.....	73
9.2.8	CTS de-enrolment indication.....	73
9.2.9	CTS MS authentication request	74
9.2.10	CTS MS authentication response	74
9.2.11	CTS FP authentication response	75
9.2.12	CTS MS authentication reject.....	75
9.2.13	CTSMSI update command.....	76
9.2.14	CTSMSI update complete.....	76
10	General message format and information elements coding.....	76
10.1	Overview	77
10.2	Protocol Discriminator	77
10.3	Sub-Protocol Discriminator and transaction identifier	77
10.3.1	Sub-Protocol Discriminator	77
10.3.2	Transaction identifier.....	77
10.4	Message Type.....	77
10.5	Other information elements.....	79
10.5.1	Common information elements.....	79
10.5.1.1	Mobile Identity.....	79
10.5.2	Radio Resource management information elements.....	79
10.5.2.1	CTSMSI	79
10.5.2.2	TFH General Parameters	80
10.5.2.3	TFH Current Parameters	81
10.5.2.4	CTS Channel Description	81
10.5.2.5	CTS Access Request Reference	82
10.5.2.6	CTS L1 information.....	82
10.5.2.7	Information Transfer Capability	83
10.5.2.8	BCD Display.....	83
10.5.2.9	AFA Interference Level	83
10.5.2.10	AFA Monitoring Cycles.....	84
10.5.2.11	OFO Measurement Results.....	84
10.5.2.12	Paging type.....	85
10.5.2.13	CTS selection parameters.....	86
10.5.2.14	CTS RR parameters.....	86
10.5.2.15	Timeslot shifting parameters.....	87
10.5.3	Mobility management information elements	88
10.5.3.1	Authentication parameter RIMS	88
10.5.3.2	Authentication parameter RIFP.....	89
10.5.3.3	Authentication parameter CH.....	89
10.5.3.4	Authentication parameter XRES.....	90
10.5.3.5	Authentication parameter Kax	90
10.5.3.6	Fixed part Identity	91
10.5.3.7	CTS mobile group list.....	91
10.5.3.8	Following attach request	92
10.5.3.9	Access right identity.....	92
10.5.3.10	TC3252	93
10.5.3.11	Attach type	93
10.5.4	Call control information elements	94
10.5.4.1	Called party BCD number.....	94
10.5.4.2	Calling party BCD number	94
10.5.4.3	Keypad facility.....	95
11	List of system parameters.....	95
11.1	Timers and counters for radio resource management.....	95
11.1.1	Timers on the MS side.....	95
11.1.2	Timers on the CTS-FP side.....	96
11.1.3	Other parameters.....	96
11.2	Timers of mobility management	96
11.2.1	Timers on the MS side.....	96
11.2.2	Timers on the CTS-FP side.....	97

11.2.3	Other parameters.....	97
11.3	Timers of circuit-switched call control.....	97
Annex A (informative): Default Codings of Information Elements.....		98
A.1	Common information elements.....	98
A.2	Radio Resource management information elements.....	98
A.3	Mobility management information elements.....	99
A.4	Call control information elements.....	100
Annex B (informative): Change history		101
History		102

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 302 406 V7.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://www.etsi.org/ipr>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Special Mobile Group (SMG).

The present document was submitted to Public Enquiry with the ETSI number 301 406. For Vote the number was changed to 302 406 because the number 301 406 is reserved and was allocated accidentally.

The present document specifies the procedures used at the CTS radio interface (Reference Point Um*, see GSM 03.56) for Call Control (CC), Mobility Management (MM) and Radio Resource (RR) management within the European digital cellular telecommunications system.

The contents of the present document are subject to continuing work within SMG and may change following formal SMG approval. Should SMG modify the contents of the present document it will then be republished by ETSI with an identifying change of release date and an increase in version number as follows:

Version 7.x.y

[SIST EN 302 406 V7.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003)

where:

<https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>

7 GSM Phase 2+ Release 1998

y the third digit is incremented when editorial only changes have been incorporated in the specification;

x the second digit is incremented for all other types of changes, i.e. technical enhancements, corrections, updates, etc.

The specification from which the present document has been derived was originally based on CEPT documentation, hence the presentation of the present document is not in accordance with the ETSI drafting rules.

National transposition dates

Date of adoption of this EN:	21 July 2000
Date of latest announcement of this EN (doa):	31 October 2000
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2001
Date of withdrawal of any conflicting National Standard (dow):	30 April 2001

1 Scope

The present document specifies the procedures used at the CTS radio interface (Reference Point Um*, see GSM 03.56) for Call Control (CC), Mobility Management (MM), Radio Resource (RR).

When the notations for "further study" or "FS" or "FFS" are present in the present document they mean that the indicated text is not a normative portion of the present document.

These procedures are defined in terms of messages exchanged over the control channels of the radio interface. The CTS control channels are described in GSM 03.52.

The structured functions and procedures of this protocol and the relationship with other layers and entities are described in general terms in GSM 04.07.

1.1 Scope of the Technical Specification

The procedures currently described in the present document are for the call control of circuit-switched connections, mobility management and radio resource management for circuit-switched services over the CTS radio interface.

GSM 04.10 contains functional procedures for support of supplementary services.

GSM 04.11 contains functional procedures for support of point-to-point short message services.

NOTE: "layer 3" includes the functions and protocols described in the present document. The terms "data link layer" and "layer 2" are used interchangeably to refer to the layer immediately below layer 3.

1.2 Application to the interface structures

The layer 3 procedures apply to the interface structures defined in GSM 04.03. They use the functions and services provided by layer 2 defined in GSM 04.05 and GSM 04.06. GSM 04.07 gives the general description of layer 3 including procedures, messages format and error handling.

1.3 Structure of layer 3 procedures

A building block method is used to describe the layer 3 procedures.

The basic building blocks are "elementary procedures" provided by the protocol control entities of the three sublayers, i.e. radio resource management, mobility management and connection management sublayer.

Complete layer 3 transactions consist of specific sequences of elementary procedures. The term "structured procedure" is used for these sequences.

1.4 Test procedures

Test procedures of the GSM-CTS radio interface signalling are described in GSM 11.10 and GSM 11.56 series.

1.5 Use of logical channels

The logical control channels are defined in GSM 03.52. In the following those control channels are considered which carry signalling information or specific types of user packet information: [to be completed]

- i) CTS Beacon CHannel (CTSBCH): downlink only, used to broadcast Cell specific information and fixed part identification information;
- ii) CTS Paging CHannel (CTSPCH): downlink only, used to send page requests to Mobile Stations (MSs);
- iii) CTS Access Random CHannel (CTSARCH): uplink only, used to request a Dedicated Control CHannel;

- iv) CTS-Access Grant CHannel (CTSAGCH): downlink only, used to allocate a Dedicated Control CHannel;
- v) Fast Associated Control CHannel (FACCH): bi-directional, associated with a Traffic CHannel;
- vi) Slow Associated Control CHannel (SACCH): bi-directional, associated with a Traffic CHannel;

Two service access points are defined on signalling layer 2 which are discriminated by their Service Access Point Identifiers (SAPI) (see GSM 04.06):

- i) SAPI 0: supports the transfer of signalling information including user-user information;
- ii) SAPI 3: supports the transfer of user short messages.

Layer 3 selects the service access point, the logical control channel and the mode of operation of layer 2 (acknowledged, unacknowledged or random access, see GSM 04.05 and GSM 04.06) as required for each individual message.

1.6 Overview of control procedures

1.6.1 List of procedures

The following procedures are specified in the present document:

- a) Clause 4 specifies elementary procedures for Radio Resource management:
 - Idle mode procedures (subclause 4.2)
 - alive check procedure (subclauses 4.2.1.2 and 4.2.2.3)
 - BCH information broadcasting (subclause 4.2.2.1)
 - CCH information broadcasting (subclause 4.2.2.2)
 - hunting (subclause 4.2.2.4)
 - connectionless group alerting (subclause 4.2.2.5)
 - RR connection establishment (subclause 4.3)
 - entering the dedicated mode: immediate assignment procedure (subclause 4.3.1.1)
 - paging procedure for RR connection establishment (subclause 4.3.2)
 - Procedures in dedicated mode (subclause 4.4)
 - intracell change of channels (subclause 4.4.4)
 - channel mode change procedure (subclause 4.4.6)
 - ciphering mode setting procedure (subclause 4.4.7)
 - RR connection release (subclause 4.4.13)
- b) Clause 5 specifies elementary procedures for CTS-Mobility Management
 - mobility management common procedures (subclause 5.2)
 - CTS attach procedure (subclause 5.2.1)
 - CTS periodic attach updating procedure (subclause 5.2.2)
 - CTS detach procedure (subclause 5.2.3)
 - CTS de-enrolment procedure (subclause 5.2.4)
 - CTS mutual authentication procedure (subclause 5.2.5)

- CTS-MSI update procedure (subclause 5.2.6)
- mobility management specific procedures (subclause 5.3)
 - CTS enrolment procedure (subclause 5.3.1)
 - CTS de-enrolment procedure (subclause 5.3.2)
- c) Clause 6 specifies CTS specific elementary procedure for circuit switched Call Control:
 - signalling procedures during the active state
 - hook flash procedure (subclause 6.1.2)

The elementary procedures can be combined to form structured procedures. Examples of such structured procedures are given in clause 7. This part of the Technical Specification is only provided for guidance to assist implementations.

Clause 8 specifies actions to be taken on various error conditions and also provides rules to ensure compatibility with future enhancements of the protocol.

1.7 Applicability of implementations

The applicability of procedures of the present document for the mobile station is dependent on the services and functions which are to be supported by a mobile station.

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. <https://standards.iteh.ai/catalog/standards/sist/86057ee1-7a16-4fla-952d-ac8ab8efdd68/sist-en-302-406-v7-1-1-2003>
- 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.
- For this Release 1998 document, references to GSM documents are for Release 1998 versions (version 7.x.y).

- [1] GSM 01.02: "Digital cellular telecommunications system (Phase 2+); General description of a GSM Public Land Mobile Network (PLMN)".
- [2] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [3] GSM 02.02: "Digital cellular telecommunications system (Phase 2+); Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN)".
- [4] GSM 02.03: "Digital cellular telecommunications system (Phase 2+); Teleservices supported by a GSM Public Land Mobile Network (PLMN)".
- [5] GSM 02.09: "Digital cellular telecommunications system (Phase 2+); Security aspects".
- [6] GSM 02.11: "Digital cellular telecommunications system (Phase 2+); Service accessibility".
- [7] GSM 02.17: "Digital cellular telecommunications system (Phase 2+); Subscriber identity modules Functional characteristics".
- [8] GSM 02.40: "Digital cellular telecommunications system (Phase 2+); Procedures for call progress indications".

- [9] GSM 03.01: "Digital cellular telecommunications system (Phase 2+); Network functions".
- [10] GSM 03.03: "Digital cellular telecommunications system (Phase 2+); Numbering, addressing and identification".
- [11] GSM 03.13: "Digital cellular telecommunications system (Phase 2+); Discontinuous Reception (DRX) in the GSM system".
- [12] GSM 03.14: "Digital cellular telecommunications system (Phase 2+); Support of Dual Tone Multi-Frequency signalling (DTMF) via the GSM system".
- [13] GSM 03.20: "Digital cellular telecommunications system (Phase 2+); Security related network functions".
- [14] GSM 03.22: "Digital cellular telecommunications system (Phase 2+); Functions related to Mobile Station (MS) in idle mode".
- [15] GSM 04.02: "Digital cellular telecommunications system (Phase 2+); GSM Public Land Mobile Network (PLMN) access reference configuration".
- [16] GSM 04.03: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface Channel structures and access capabilities".
- [17] GSM 04.04: "Digital cellular telecommunications system (Phase 2+); layer 1 General requirements".
- [18] GSM 04.05: "Digital cellular telecommunications system (Phase 2+); Data Link (DL) layer General aspects".
- [19] GSM 04.06: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".
- [20] GSM 04.07: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface signalling layer 3 General aspects".
- [21] GSM 04.10: "Digital cellular telecommunications system; Mobile radio interface layer 3 Supplementary services specification General aspects".
- [22] GSM 04.11: "Digital cellular telecommunications system (Phase 2); Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
- [23] GSM 04.12: "Digital cellular telecommunications system (Phase 2+); Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".
- [24] GSM 04.80: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 supplementary services specification Formats and coding".
- [25] GSM 04.81: "Digital cellular telecommunications system (Phase 2+); Line identification supplementary services - Stage 3".
- [26] GSM 04.82: "Digital cellular telecommunications system (Phase 2+); Call Forwarding (CF) supplementary services - Stage 3".
- [27] GSM 04.83: "Digital cellular telecommunications system (Phase 2+); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 3".
- [28] GSM 04.84: "Digital cellular telecommunications system (Phase 2+); MultiParty (MPTY) supplementary services - Stage 3".
- [29] GSM 04.85: "Digital cellular telecommunications system (Phase 2+); Closed User Group (CUG) supplementary services - Stage 3".
- [30] GSM 04.86: "Digital cellular telecommunications system (Phase 2+); Advice of Charge (AoC) supplementary services - Stage 3".