



**Digital cellular telecommunications system (Phase 2+);  
Mobile Switching Centre - Base Station system (MSC-BSS)  
interface;  
Layer 3 specification  
(3GPP TS 48.008 version 13.0.0 Release 13)**

TELESTANDARD PREVIEW  
<https://standards.etsi.org/standards/etsi-ts-148-008-v13.0.0-4f65-4674-ba40-6da2-901a-16e3-000000000000>



---

Reference

RTS/TSGG-0248008vd00

---

Keywords

GSM

**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

---

**Important notice**

The present document can be downloaded from:  
<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (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://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

<https://portal.etsi.org/People/CommitteeSupportStaff.aspx>

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2016.  
All rights reserved.

**DECT™, PLUGTESTS™, UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.  
**3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and  
of the 3GPP Organizational Partners.

**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

## 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 (<https://ipr.etsi.org/>).

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 Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under  
<http://webapp.etsi.org/key/queryform.asp>

---

## Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.

# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	11
1 Scope .....	12
1.1 References .....	12
1.2 Definitions and Abbreviations.....	14
2 Application to interface structures .....	15
2.1 The BSS Operation and Maintenance Application Part .....	15
2.2 The Direct Transfer Application Part .....	15
2.3 The BSS Management Application Part.....	16
2.4 Handling of abnormal events related to the BSSAP Header .....	16
3 The BSS Management Application Part .....	17
3.1 BSSMAP Procedures .....	17
3.1.1 Assignment .....	17
3.1.1.1 Successful Operation.....	18
3.1.1.2 Assignment Failure .....	21
3.1.1.3 Abnormal Conditions .....	22
3.1.2 Blocking and Unblocking .....	22
3.1.2.1 Successful Operation.....	23
3.1.2.2 Abnormal Conditions .....	24
3.1.2.2.1 Applying to the Single Circuit Block Procedure .....	24
3.1.2.2.2 Applying to the Circuit Group Block Procedure .....	24
3.1.3 Resource Indication .....	25
3.1.3.1 Successful Operation.....	26
3.1.4 Reset .....	27
3.1.4.1 Global Reset Procedure.....	27
3.1.4.1.1 Reset at the BSS .....	27
3.1.4.1.2 Reset at the MSC .....	27
3.1.4.1.3 Abnormal Conditions .....	28
3.1.4.1.3.1 Abnormal Condition at the BSS.....	28
3.1.4.1.3.2 Abnormal Condition at the MSC .....	28
3.1.4.2 Reset Circuit.....	28
3.1.4.2.1 Reset Circuit at the BSS .....	28
3.1.4.2.2 Reset Circuit at the MSC .....	28
3.1.4.2.3 Abnormal conditions .....	28
3.1.4.3 Reset IP Resource .....	29
3.1.4.3.1 Reset IP Resource procedure initiated by the BSS .....	29
3.1.4.3.2 Reset IP Resource procedure initiated by the MSC.....	29
3.1.4.3.3 Abnormal conditions .....	29
3.1.5 External Handover .....	30
3.1.5.1 Handover Required Indication .....	30
3.1.5.1.1 Generation of the HANOVER REQUIRED message .....	31
3.1.5.1.2 Abnormal conditions for DTM Handover .....	33
3.1.5.2 Handover Resource allocation .....	34
3.1.5.2.1 Operation of the procedure .....	34
3.1.5.2.2 Handover Resource Allocation Failure .....	38
3.1.5.2.3 Abnormal conditions .....	39
3.1.5.3 Handover execution .....	39
3.1.5.3.1 Operation of the procedure .....	40
3.1.5.3.2 Handover Failure .....	41
3.1.5.3.3 Abnormal Conditions .....	42
3.1.5a Handover from GSM to another System.....	42
3.1.5a.1 Generation of the HANOVER REQUIRED message for intersystem handover .....	43

3.1.5a.2	Inter-System Handover Resource Allocation Failure.....	44
3.1.5a.3	Intersystem handover Execution .....	45
3.1.5a.4	Inter System Handover Failure .....	46
3.1.5a.5	Abnormal Conditions .....	46
3.1.5b	Handover from another system to GSM .....	46
3.1.5b.1	General .....	46
3.1.5b.2	Inter-System Handover Resource Allocation.....	47
3.1.5c	BSS Internal Handover with MSC support.....	47
3.1.5c.1	Internal Handover Preparation .....	47
3.1.5c.1.1	Internal Handover Required Reject .....	48
3.1.5c.2	Internal Handover Execution .....	48
3.1.5c.2.1	Internal Handover failure.....	49
3.1.5c.2.2	Abnormal Conditions .....	49
3.1.5c.3	Internal Handover Enquiry .....	50
3.1.6	Internal Intra-Cell Handover Procedure.....	50
3.1.7	Internal Inter-Cell Handover Procedure.....	51
3.1.8	Handover Candidate Enquiry.....	51
3.1.8.1	Successful Operation.....	52
3.1.8.2	Abnormal conditions .....	52
3.1.9	Release of Radio Resource And Terrestrial Resource .....	52
3.1.9.1	Release Due To Transaction Completion.....	52
3.1.9.1a	Release of radio resources and the terrestrial resources for VGCS/VBS calls:.....	53
3.1.9.2	Release due to BSS generated reason .....	53
3.1.9.3	Release due to successful handover .....	55
3.1.9.4	Release due to uplink release .....	55
3.1.10	Paging .....	55
3.1.11	Trace Invocation .....	55
3.1.12	Flow Control.....	56
3.1.12.1	Philosophy.....	56
3.1.12.2	Processor Overload at the MSC .....	56
3.1.12.3	Processor/CCCH overload at the BSS .....	57
3.1.12.4	Message throughput congestion .....	57
3.1.13	Classmark Handling Procedures .....	57
3.1.13.1	Classmark request procedure .....	57
3.1.13.2	Classmark updating procedure .....	57
3.1.14	Cipher Mode Control .....	57
3.1.14.1	Successful Operation.....	57
3.1.14.2	Abnormal Conditions .....	58
3.1.15	General SCCP Abnormal Conditions .....	58
3.1.16	Initial MS message.....	59
3.1.17	Queuing Indication .....	59
3.1.17.1	Operation of the procedure in case of assignment procedure.....	59
3.1.17.2	Operation of the procedure in case of hand-over resource allocation procedure .....	60
3.1.18	Data Link Control SAPI not Equal to "0" .....	60
3.1.18.1	Data link set up across the radio interface.....	60
3.1.18.1.1	MS to MSC direction.....	60
3.1.18.1.2	MSC to MS Direction.....	60
3.1.18.2	Choice of the signalling link .....	60
3.1.19	BSSMAP Error Handling .....	61
3.1.19.1	Definitions of Types of Information Elements.....	61
3.1.19.2	Erroneous Events .....	62
3.1.19.3	Non-erroneous Events.....	62
3.1.19.4	Other Events.....	62
3.1.19.5	Appropriate Error Message and Cause Value .....	63
3.1.19.6	Unequipped Circuit Identification Code .....	63
3.1.19.7	Field Elements.....	64
3.1.20	Load Indication Procedure.....	64
3.1.20.1	Operation of the procedure.....	65
3.1.21	Voice group call service and voice broadcast service call set-up and resource assignment .....	65
3.1.21.1	Successful operation.....	66
3.1.21.2	VGCS/VBS call set-up abnormal cases .....	66
3.1.21.3	VGCS/VBS call set-up failure .....	66

3.1.22	Voice group call service and voice broadcast service Assignment procedure .....	66
3.1.22.1	Successful operation.....	67
3.1.22.2	VGCS/VBS Assignment abnormal cases.....	69
3.1.22.3	VGCS/VBS Assignment failure.....	70
3.1.22.4	VGCS/VBS Queuing Indication .....	71
3.1.23	(void) .....	71
3.1.24	Voice group call uplink control procedure - talker priority not supported by the network.....	71
3.1.24.1	Uplink allocation procedure.....	71
3.1.24.1.1	Successful uplink allocation operation .....	72
3.1.24.1.2	Unsuccessful uplink allocation operation .....	72
3.1.24.2	Uplink release procedure.....	72
3.1.24.3	Uplink seize procedure.....	72
3.1.24a	Voice group call uplink control procedure - talker priority supported by the network.....	72
3.1.24.a.1	General .....	72
3.1.24a.2	Uplink allocation procedure .....	73
3.1.24a.2.1	Successful uplink allocation operation .....	73
3.1.24a.2.1.1	Normal Priority Request .....	73
3.1.24a.2.1.2	Privileged or Emergency Priority Request via Uplink Access procedure.....	73
3.1.24a.2.1.3	Privileged or Emergency Priority Request via Priority Uplink Request procedure .....	74
3.1.24a.2.2	Unsuccessful uplink allocation operation .....	74
3.1.24a.2.2.1	Normal Priority Uplink Request .....	74
3.1.24a.2.2.2	Privileged or Emergency Uplink Request via Uplink Access procedure.....	74
3.1.24a.2.2.3	Privileged or Emergency Uplink Request via Priority Uplink Request procedure .....	75
3.1.24a.3	Uplink release procedure.....	75
3.1.24a.4	Uplink seize procedure.....	75
3.1.24a.5	Emergency Reset procedure via UPLINK ACCESS message .....	75
3.1.24a.5.1	Unsuccessful .....	75
3.1.24a.6	Emergency Reset procedure via PRIORITY UPLINK REQUEST message .....	75
3.1.24a.6.1	Unsuccessful .....	75
3.1.24b	Talker Information.....	76
3.1.24c	SMS to ongoing VGCS call all .....	76
3.1.24d	Distributing application specific data to ongoing VGCS call .....	76
3.1.25	PDSS1 flow control .....	76
3.1.26	Circuit re-selection procedure .....	77
3.1.27	LSA handling .....	77
3.1.28	Location Acquisition .....	77
3.1.28.1	(void).....	78
3.1.28.2	Location request .....	78
3.1.28.2.1	Successful Operation.....	78
3.1.28.2.2	Unsuccessful Operation .....	79
3.1.28.2.3	Abnormal cases .....	79
3.1.28.2.4	Overload .....	79
3.1.29	Connectionless Information Transfer procedure .....	79
3.1.29.1	Unsuccessful Operation .....	79
3.1.29.2	Abnormal cases .....	79
3.1.29.3	Segmentation .....	79
3.1.30	Common ID .....	80
3.1.31	VGCS/VBS Cell Re-established - no A-interface link sharing .....	80
3.1.32	Rerouting procedure in case of MOCN configuration for network sharing .....	80
3.1.32.1	General .....	80
3.1.32.2	Reroute command .....	81
3.1.32.3	Reroute complete .....	82
3.1.32.4	Abnormal Conditions .....	82
3.1.32a	Rerouting procedure in case of GWCN configuration for network sharing .....	83
3.1.32a.1	General .....	83
3.1.33	Local Call Local Switch .....	85
3.1.33.1	General .....	85
3.1.33.2	Local switch establishment .....	85
3.1.33.2.1	Call Leg Correlation .....	85
3.1.33.2.2	Successful Operation .....	85
3.1.33.2.3	Unsuccessful Operation .....	86
3.1.33.3	Local switch break .....	86

3.1.33.3.1	Local switching break request from MSC .....	86
3.1.33.3.2	Local switching break initiated by BSS.....	86
3.1.33.3.3	Local Switching break at Handover .....	87
3.1.33.4	Local switch prevention .....	87
3.1.33.5	LCLS Notification.....	87
3.1.34	MS Registration Enquiry .....	87
3.1.34.1	General .....	87
3.1.34.2	Registration enquiry.....	88
3.1.34.3	Registration response .....	88
3.2	Message Formats and Coding .....	88
3.2.1	Message Contents .....	91
3.2.1.1	ASSIGNMENT REQUEST .....	91
3.2.1.2	ASSIGNMENT COMPLETE.....	92
3.2.1.3	ASSIGNMENT FAILURE .....	94
3.2.1.4	BLOCK .....	95
3.2.1.5	BLOCKING ACKNOWLEDGE .....	95
3.2.1.6	UNBLOCK .....	95
3.2.1.7	UNBLOCKING ACKNOWLEDGE .....	95
3.2.1.8	HANDOVER REQUEST .....	96
3.2.1.9	HANDOVER REQUIRED .....	99
3.2.1.10	HANDOVER REQUEST ACKNOWLEDGE.....	101
3.2.1.11	HANDOVER COMMAND .....	102
3.2.1.12	HANDOVER COMPLETE .....	102
3.2.1.13	HANDOVER SUCCEEDED.....	103
3.2.1.14	HANDOVER CANDIDATE ENQUIRE.....	103
3.2.1.15	HANDOVER CANDIDATE RESPONSE .....	103
3.2.1.16	HANDOVER FAILURE .....	103
3.2.1.17	RESOURCE REQUEST .....	105
3.2.1.18	RESOURCE INDICATION.....	105
3.2.1.19	PAGING .....	106
3.2.1.20	CLEAR REQUEST .....	106
3.2.1.21	CLEAR COMMAND .....	107
3.2.1.22	CLEAR COMPLETE .....	107
3.2.1.23	RESET .....	107
3.2.1.24	RESET ACKNOWLEDGE .....	108
3.2.1.25	HANDOVER PERFORMED.....	109
3.2.1.26	OVERLOAD.....	110
3.2.1.27	MSC INVOKE TRACE .....	110
3.2.1.28	BSS INVOKE TRACE .....	110
3.2.1.29	CLASSMARK UPDATE.....	111
3.2.1.30	CIPHER MODE COMMAND.....	111
3.2.1.31	CIPHER MODE COMPLETE.....	111
3.2.1.32	COMPLETE LAYER 3 INFORMATION.....	112
3.2.1.33	QUEUEING INDICATION.....	112
3.2.1.34	SAPI "n" REJECT.....	113
3.2.1.35	(void).....	113
3.2.1.36	(void).....	113
3.2.1.37	HANDOVER REQUIRED REJECT .....	113
3.2.1.38	RESET CIRCUIT .....	114
3.2.1.39	RESET CIRCUIT ACKNOWLEDGE.....	114
3.2.1.40	HANDOVER DETECT .....	114
3.2.1.41	CIRCUIT GROUP BLOCK.....	114
3.2.1.42	CIRCUIT GROUP BLOCKING ACKNOWLEDGE.....	115
3.2.1.43	CIRCUIT GROUP UNBLOCK .....	115
3.2.1.44	CIRCUIT GROUP UNBLOCKING ACKNOWLEDGE .....	115
3.2.1.45	CONFUSION .....	115
3.2.1.46	CLASSMARK REQUEST .....	116
3.2.1.47	UNEQUIPPED CIRCUIT.....	116
3.2.1.48	CIPHER MODE REJECT.....	116
3.2.1.49	LOAD INDICATION .....	117
3.2.1.50	VGCS/VBS SETUP .....	117
3.2.1.51	VGCS/VBS SETUP ACK.....	117

3.2.1.52	VGCS/VBS SETUP REFUSE .....	118
3.2.1.53	VGCS/VBS ASSIGNMENT REQUEST .....	118
3.2.1.54	VGCS/VBS ASSIGNMENT RESULT .....	119
3.2.1.55	VGCS/VBS ASSIGNMENT FAILURE .....	119
3.2.1.56	VGCS/VBS QUEUING INDICATION .....	120
3.2.1.57	UPLINK REQUEST .....	120
3.2.1.58	UPLINK REQUEST ACKNOWLEDGE .....	121
3.2.1.59	UPLINK REQUEST CONFIRMATION .....	121
3.2.1.59a	UPLINK APPLICATION DATA .....	121
3.2.1.60	UPLINK RELEASE INDICATION .....	121
3.2.1.61	UPLINK REJECT COMMAND .....	122
3.2.1.62	UPLINK RELEASE COMMAND .....	122
3.2.1.63	UPLINK SEIZED COMMAND .....	122
3.2.1.64	SUSPEND .....	122
3.2.1.65	RESUME .....	123
3.2.1.66	CHANGE CIRCUIT .....	123
3.2.1.67	CHANGE CIRCUIT ACKNOWLEDGE .....	123
3.2.1.68	Common ID .....	123
3.2.1.69	LSA INFORMATION .....	124
3.2.1.70	(void) .....	124
3.2.1.71	PERFORM LOCATION REQUEST .....	124
3.2.1.72	PERFORM LOCATION RESPONSE .....	125
3.2.1.73	PERFORM LOCATION ABORT .....	125
3.2.1.74	CONNECTIONLESS INFORMATION .....	125
3.2.1.75	CHANNEL MODIFY REQUEST .....	125
3.2.1.76	EMERGENCY RESET INDICATION .....	126
3.2.1.77	EMERGENCY RESET COMMAND .....	126
3.2.1.78	VGCS ADDITIONAL INFORMATION .....	126
3.2.1.79	VGCS/VBS AREA CELL INFO .....	126
3.2.1.80	VGCS/VBS ASSIGNMENT STATUS .....	126
3.2.1.81	VGCS SMS .....	127
3.2.1.82	NOTIFICATION DATA .....	128
3.2.1.83	INTERNAL HANDOVER REQUIRED .....	128
3.2.1.84	INTERNAL HANDOVER REQUIRED-REJECT .....	129
3.2.1.85	INTERNAL HANDOVER COMMAND .....	129
3.2.1.86	INTERNAL HANDOVER ENQUIRY .....	130
3.2.1.87	RESET IP RESOURCE .....	130
3.2.1.88	RESET IP RESOURCE ACKNOWLEDGE .....	130
3.2.1.89	REROUTE COMMAND .....	131
3.2.1.90	REROUTE COMPLETE .....	131
3.2.1.91	LCLS-CONNECT-CONTROL .....	131
3.2.1.92	LCLS-CONNECT-CONTROL-ACK .....	131
3.2.1.93	LCLS-NOTIFICATION .....	132
3.2.1.94	MS REGISTRATION ENQUIRY .....	132
3.2.1.95	MS REGISTRATION ENQUIRY RESPONSE .....	132
3.2.2	Signalling element coding .....	132
3.2.2.0	General .....	132
3.2.2.1	Message Type .....	137
3.2.2.2	Circuit Identity Code .....	138
3.2.2.3	Connection Release Requested .....	139
3.2.2.4	Resource Available .....	139
3.2.2.5	Cause .....	140
3.2.2.6	IMSI .....	142
3.2.2.7	TMSI .....	143
3.2.2.8	Number Of MSs .....	143
3.2.2.9	Layer 3 Header Information .....	143
3.2.2.10	Encryption Information .....	144
3.2.2.11	Channel Type .....	144
3.2.2.12	Periodicity .....	150
3.2.2.13	Extended Resource Indicator .....	151
3.2.2.14	Total Resource Accessible .....	151
3.2.2.15	LSA Identifier .....	152

3.2.2.16	LSA Identifier List .....	152
3.2.2.17	Cell Identifier .....	153
3.2.2.18	Priority .....	156
3.2.2.19	Classmark Information Type 2 .....	156
3.2.2.20	Classmark Information Type 3 .....	157
3.2.2.21	Interference Band To Be Used .....	157
3.2.2.22	RR Cause .....	157
3.2.2.23	LSA Information .....	158
3.2.2.24	Layer 3 Information .....	158
3.2.2.25	DLCI .....	159
3.2.2.26	Downlink DTX Flag .....	159
3.2.2.27	Cell Identifier List .....	159
3.2.2.27a	Cell Identifier List Segment .....	162
3.2.2.27b	Cell Identifier List Segment for established cells .....	165
3.2.2.27c	Cell Identifier List Segment for cells to be established .....	168
3.2.2.27d	(void) .....	169
3.2.2.27e	Cell Identifier List Segment for released cells - no user present .....	169
3.2.2.27f	Cell Identifier List Segment for not established cells - no establishment possible .....	169
3.2.2.28	Response Request .....	169
3.2.2.29	Resource Indication Method .....	170
3.2.2.30	Classmark Information Type 1 .....	170
3.2.2.31	Circuit Identity Code List .....	170
3.2.2.32	Diagnostics .....	171
3.2.2.33	Chosen Channel .....	172
3.2.2.34	Cipher Response Mode .....	173
3.2.2.35	Layer 3 Message Contents .....	173
3.2.2.36	Channel Needed .....	174
3.2.2.37	Trace Type .....	174
3.2.2.38	TriggerID .....	174
3.2.2.39	Trace Reference .....	174
3.2.2.40	TransactionID .....	174
3.2.2.41	Mobile Identity .....	175
3.2.2.42	OMCID .....	175
3.2.2.43	Forward Indicator .....	175
3.2.2.44	Chosen Encryption Algorithm .....	175
3.2.2.45	Circuit Pool .....	176
3.2.2.46	Circuit Pool List .....	181
3.2.2.47	Time Indication .....	181
3.2.2.48	Resource Situation .....	181
3.2.2.49	Current Channel Type 1 .....	183
3.2.2.50	Queuing Indicator .....	184
3.2.2.51	Speech Version .....	184
3.2.2.52	Assignment Requirement .....	184
3.2.2.53	(void) .....	185
3.2.2.54	Talker Flag .....	185
3.2.2.55	Group Call Reference .....	185
3.2.2.56	eMLPP Priority .....	185
3.2.2.57	Configuration Evolution Indication .....	185
3.2.2.58	Old BSS to New BSS information .....	186
3.2.2.59	(void) .....	187
3.2.2.60	LCS QoS .....	187
3.2.2.61	LSA Access Control Suppression .....	187
3.2.2.62	LCS Priority .....	187
3.2.2.63	Location Type .....	187
3.2.2.64	Location Estimate .....	188
3.2.2.65	Positioning Data .....	188
3.2.2.66	LCS Cause .....	188
3.2.2.67	LCS Client Type .....	188
3.2.2.68	APDU .....	189
3.2.2.69	Network Element Identity .....	189
3.2.2.70	GPS Assistance Data .....	189
3.2.2.71	Deciphering Keys .....	189

3.2.2.72	Return Error Request.....	190
3.2.2.73	Return Error Cause.....	190
3.2.2.74	Segmentation.....	190
3.2.2.75	Service Handover.....	191
3.2.2.76	Source RNC to target RNC transparent information (UMTS).....	191
3.2.2.77	Source RNC to target RNC transparent information (cdma2000).....	191
3.2.2.78	GERAN Classmark .....	192
3.2.2.79	GERAN BSC Container.....	192
3.2.2.80	New BSS to Old BSS Information.....	193
3.2.2.81	Inter-System Information .....	194
3.2.2.82	SNA Access Information .....	194
3.2.2.83	VSTK_RAND Information.....	195
3.2.2.84	VSTK information .....	195
3.2.2.85	Paging Information.....	196
3.2.2.86	IMEI.....	196
3.2.2.87	Velocity Estimate.....	196
3.2.2.88	VGCS Feature Flags .....	197
3.2.2.89	Talker Priority .....	198
3.2.2.90	Emergency Set Indication .....	198
3.2.2.91	Talker Identity.....	198
3.2.2.92	SMS to VGCS .....	199
3.2.2.93	VGCS talker mode .....	199
3.2.2.94	VGCS/VBS Cell Status.....	200
3.2.2.95	GANSS Assistance Data .....	200
3.2.2.96	GANSS Positioning Data.....	200
3.2.2.97	GANSS Location Type .....	201
3.2.2.98	Application Data .....	201
3.2.2.99	Data Identity.....	201
3.2.2.100	Application Data Information .....	201
3.2.2.101	MSISDN .....	202
3.2.2.102	AoIP Transport Layer Address .....	202
3.2.2.103	Speech Codec List .....	202
3.2.2.104	Speech Codec .....	206
3.2.2.105	Call Identifier .....	207
3.2.2.106	Call Identifier List .....	207
3.2.2.107	A-Interface Selector for RESET .....	207
3.2.2.108	(void).....	208
3.2.2.109	Kc <sub>128</sub> .....	208
3.2.2.110	CSG Identifier .....	208
3.2.2.111	Redirect Attempt Flag .....	208
3.2.2.112	Reroute Reject Cause .....	209
3.2.2.113	Send Sequence Number .....	209
3.2.2.114	Reroute complete outcome .....	209
3.2.2.115	Global Call Reference .....	210
3.2.2.116	LCLS-Configuration .....	210
3.2.2.117	LCLS-Connection-Status-Control.....	211
3.2.2.118	LCLS-Correlation-Not-Needed.....	211
3.2.2.119	LCLS-BSS-Status .....	211
3.2.2.120	LCLS-Break-Request.....	212
3.2.2.121	CSFB Indication.....	212
3.2.2.122	CS to PS SRVCC .....	212
3.2.2.123	Source eNB to target eNB transparent information (E-UTRAN) .....	212
3.2.2.124	CS to PS SRVCC Indication .....	212
3.2.2.125	CN to MS transparent information .....	212
3.2.2.126	Selected PLMN ID.....	213
3.2.2.127	Last used E-UTRAN PLMN ID .....	213
3.2.2.128	Old Location Area Identification .....	213
3.2.2.129	Attach Indicator.....	214
3.2.2.130	Selected Operator .....	214
3.2.2.131	PS Registered Operator .....	214
3.2.2.132	CS Registered Operator.....	214
3.2.3	Signalling Field Element Coding.....	214

3.2.3.1	Extra information .....	215
3.2.3.2	Current Channel type 2 .....	216
3.2.3.3	Target cell radio information.....	216
3.2.3.4	GPRS Suspend Information .....	217
3.2.3.5	MultiRate configuration Information .....	217
3.2.3.6	Dual Transfer Mode information .....	217
3.2.3.7	Inter RAT Handover Info.....	218
3.2.3.8	cdma2000 Capability Information .....	218
3.2.3.9	Downlink Cell Load Information.....	218
3.2.3.10	Uplink Cell Load Information.....	219
3.2.3.11	Cell Load Information Group.....	219
3.2.3.12	Cell Load Information.....	219
3.2.3.13	PS Indication .....	220
3.2.3.14	DTM Handover Command Indication .....	220
3.2.3.15	D-RNTI.....	220
3.2.3.16	IRAT Measurement Configuration .....	221
3.2.3.17	Source Cell ID .....	221
3.2.3.18	IRAT Measurement Configuration (extended E-ARFCNs).....	222
3.2.4	List of Timers in the BSSMAP Procedures .....	223
3.3	SDL Representation Of The Procedures At The BSS .....	223
4	Broadcast Information Control Channel .....	223
5	Definitions .....	223
6	List of diagrams.....	225
<b>Annex A (informative):</b>	<b>Change History .....</b>	<b>236</b>
History .....	.....	237

iteh STANDARD PREVIEW  
Full standard:  
<https://standards.iteh.ai/catalog/standards/sis/e9dab76-4f65-4674-ba40-6da1a90f41e8/etsi-ts-148-008-v13.0.0>

---

## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

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

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

iteh STANDARD PREVIEW  
(standards.iteh.ai)  
Full standard:  
<https://standards.iteh.ai/catalog/standards/sist/etsidb76-4f65-4674-ba40-6dal90f41e8/etsi-ts-148-008-v13.0.0>  
2016-01

# 1 Scope

The present document specifies the layer 3 procedures used on the Base Station System (BSS) to Mobile-services Switching Centre (MSC) interface for control of GSM services.

For the purposes of call control and mobility management, messages are not interpreted at the Base Station System (BSS) which acts as a relay function. These messages and procedures are documented in 3GPP TS 24.008, the only relevant issues covering these messages in the present document are those concerned with error conditions at the interface, and the headers that are required for the correct addressing of the messages. This is specified in more detail in 3GPP TS 48.002.

The functional split between MSC and BSS is defined in 3GPP TS 48.002 and states that the BSS is responsible for local radio resource allocation and in order to support this the required procedures between BSS and MSC are defined in detail in the present document.

3GPP TS 48.002 also states that the BSS is responsible for the scheduling of all CCCH/BCCH messages and therefore some procedures for providing the BSS with the necessary information to be passed on these channels for individual calls (i.e. paging) are defined in the present document, but the scheduling is not discussed.

This interface and consequently these layer 3 procedures are designed to support BSSs providing one or more cells.

## 1.1 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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 23.003: "Numbering, addressing and identification".
- [3] 3GPP TS 23.009: "Handover procedures".
- [3a] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".
- [4] (void)
- [5] 3GPP TS 43.059: "Functional stage 2 description of Location Services (LCS) in GERAN".
- [6] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".
- [7] (void).
- [8] (void).
- [9] (void).
- [10] (void).
- [11] (void).
- [12] (void).
- [13] (void).