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# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	28
Introduction .....	28
1 Scope .....	29
1.1 Scope of the Technical Specification .....	29
1.2 Application to the interface structures.....	29
1.3 Structure of layer 3 procedures.....	29
1.4 Test procedures .....	30
1.5 Use of logical channels in A/Gb mode.....	30
1.6 Overview of control procedures .....	30
1.6.1 List of procedures .....	30
1.7 Applicability of implementations .....	32
1.7.1 Voice Group Call Service (VGCS) and Voice Broadcast Service (VBS).....	32
1.7.2 General Packet Radio Service (GPRS) .....	32
1.7.2.1 Packet services in GSM (A/Gb mode only) .....	32
1.7.2.2 Packet services in Iu mode (Iu mode only) .....	33
1.8 Handling of NAS signalling low priority indication .....	33
1.9 Restrictions.....	34
2 References .....	34
2.1 Definitions and abbreviations.....	40
2.1.1 Random values.....	41
2.1.2 Vocabulary.....	41
3 Radio Resource management procedures.....	46
4 Elementary procedures for Mobility Management.....	46
4.1 General .....	46
4.1.1 MM and GMM procedures .....	47
4.1.1.1 Types of MM and GMM procedures .....	47
4.1.1.1.1 Integrity Checking of Signalling Messages in the Mobile Station (Iu mode only).....	48
4.1.1.1.1a Integrity protection for emergency call (Iu mode only).....	50
4.1.1.2 MM-GMM co-ordination for GPRS MS's .....	50
4.1.1.2.1 GPRS MS operating in mode A or B in a network that operates in mode I .....	50
4.1.1.2.2 GPRS MS operating in mode A or B in a network that operates in mode II.....	52
4.1.1.2A Coordination between GMM and EMM .....	52
4.1.1.3 Core Network System Information for MM (Iu mode only).....	52
4.1.1.4 Core Network System Information for GMM (Iu mode only).....	52
4.1.1.4.1 General .....	52
4.1.1.4.2 Control of Network Mode of Operation I.....	53
4.1.1.5 Access class control .....	53
4.1.1.6 Specific requirements for MS configured to use timer T3245 .....	53
4.1.1.6A Specific requirements for the MS when receiving non-integrity protected reject messages .....	54
4.1.1.7 Handling of NAS level mobility management congestion control.....	58
4.1.1.8 Handling of security related parameters at switch on and switch off.....	59
4.1.1.9 Equivalent PLMNs list.....	59
4.1.1.10 Dedicated core network.....	60
4.1.2 MM sublayer states.....	60
4.1.2.1 MM sublayer states in the mobile station.....	60
4.1.2.1.1 Main states.....	60
4.1.2.1.2 Substates of the MM IDLE state .....	64
4.1.2.2 The update Status .....	66
4.1.2.3 MM sublayer states on the network side .....	66
4.1.3 GPRS mobility management (GMM) sublayer states.....	68

4.1.3.1	GMM states in the MS .....	68
4.1.3.1.1	Main states.....	68
4.1.3.1.2	Substates of state GMM-DEREGISTERED.....	69
4.1.3.1.3	Substates of state GMM-REGISTERED.....	69
4.1.3.2	GPRS update status.....	72
4.1.3.3	GMM mobility management states on the network side.....	72
4.1.3.3.1	Main States .....	73
4.1.3.3.2	Substates of state GMM-REGISTERED.....	73
4.2	Behaviour of the MS in MM Idle state, GMM-DEREGISTERED state and GMM-REGISTERED state .....	74
4.2.1	Primary Service State selection .....	74
4.2.1.1	Selection of the Service State after Power On.....	74
4.2.1.2	Other Cases .....	75
4.2.2	Detailed Description of the MS behaviour in MM IDLE State. ....	75
4.2.2.1	Service State, NORMAL SERVICE.....	75
4.2.2.2	Service State, ATTEMPTING TO UPDATE .....	76
4.2.2.3	Service State, LIMITED SERVICE.....	76
4.2.2.4	Service State, NO IMSI.....	77
4.2.2.5	Service State, SEARCH FOR PLMN, NORMAL SERVICE.....	77
4.2.2.6	Service State, SEARCH FOR PLMN .....	78
4.2.2.7	Service State, RECEIVING GROUP CALL (NORMAL SERVICE).....	78
4.2.2.8	Service State, RECEIVING GROUP CALL (LIMITED SERVICE).....	78
4.2.2.9	Service State, eCALL INACTIVE.....	79
4.2.3	Service state when back to state MM IDLE from another state.....	79
4.2.4	Behaviour in state GMM-DEREGISTERED.....	80
4.2.4.1	Primary substate selection.....	80
4.2.4.1.1	Selection of the substate after power on or enabling the MS's GPRS capability.....	80
4.2.4.1.2	Other Cases.....	81
4.2.4.2	Detailed description of the MS behaviour in state GMM-DEREGISTERED.....	81
4.2.4.2.1	Substate, NORMAL-SERVICE .....	81
4.2.4.2.2	Substate, ATTEMPTING-TO-ATTACH .....	81
4.2.4.2.3	Substate, LIMITED-SERVICE .....	82
4.2.4.2.4	Substate, NO-IMSI.....	82
4.2.4.2.5	Substate, NO-CELL .....	82
4.2.4.2.6	Substate, PLMN-SEARCH .....	82
4.2.4.2.7	Substate, ATTACH-NEEDED .....	82
4.2.4.2.8	Substate, SUSPENDED (A/Gb mode only) .....	82
4.2.4.3	Substate when back to state GMM-DEREGISTERED from another GMM state .....	82
4.2.5	Behaviour in state GMM-REGISTERED.....	83
4.2.5.1	Detailed description of the MS behaviour in state GMM-REGISTERED.....	83
4.2.5.1.1	Substate, NORMAL-SERVICE .....	83
4.2.5.1.2	Substate, SUSPENDED (A/Gb mode only) .....	83
4.2.5.1.3	Substate, UPDATE-NEEDED.....	84
4.2.5.1.4	Substate, ATTEMPTING-TO-UPDATE .....	84
4.2.5.1.5	Substate, NO-CELL-AVAILABLE .....	84
4.2.5.1.6	Substate, LIMITED-SERVICE .....	84
4.2.5.1.7	Substate, ATTEMPTING-TO-UPDATE-MM .....	85
4.2.5.1.8	Substate, PLMN-SEARCH .....	85
4.3	MM common procedures .....	85
4.3.1	TMSI reallocation procedure.....	85
4.3.1.1	TMSI reallocation initiation by the network .....	86
4.3.1.2	TMSI reallocation completion by the mobile station .....	86
4.3.1.3	TMSI reallocation completion in the network.....	86
4.3.1.4	Abnormal cases in the mobile station.....	86
4.3.1.5	Abnormal cases on the network side.....	86
4.3.2	Authentication procedure.....	87
4.3.2a	Authentication procedure used for a UMTS authentication challenge.....	87
4.3.2b	Authentication Procedure used for a GSM authentication challenge.....	87
4.3.2.1	Authentication request by the network.....	88
4.3.2.2	Authentication response by the mobile station.....	88
4.3.2.3	Authentication processing in the network .....	89
4.3.2.3a	128-bit circuit-switched GSM ciphering key .....	89
4.3.2.4	Ciphering key sequence number .....	89

4.3.2.5	Authentication not accepted by the network .....	90
4.3.2.5.1	Authentication not accepted by the MS .....	91
4.3.2.6	Abnormal cases .....	91
4.3.2.6.1	MS behaviour towards a network that has failed the authentication procedure.....	94
4.3.2.7	Handling of keys at intersystem change from Iu mode to A/Gb mode .....	94
4.3.2.7a	Use of established security contexts.....	95
4.3.2.8	Handling of keys at intersystem change from A/Gb mode to Iu mode .....	96
4.3.2.9	Void.....	97
4.3.2.10	Derivation of keys at SRVCC or vSRVCC handover from S1 mode .....	97
4.3.2.10.0	General .....	97
4.3.2.10.1	PDN connection with integrity protection .....	97
4.3.2.10.2	PDN connection without integrity protection.....	97
4.3.2.11	Derivation of keys at SRVCC handover from Iu mode to Iu mode .....	97
4.3.2.11.1	PDN connection with integrity protection.....	97
4.3.2.11.2	PDN connection without integrity protection.....	98
4.3.2.12	Derivation of keys at SRVCC handover from Iu mode to A/Gb mode.....	99
4.3.2.12.1	PDN connection with integrity protection.....	99
4.3.2.12.2	PDN connection without integrity protection.....	100
4.3.2.13	Derivation of keys at CS to PS SRVCC handover from A/Gb mode to Iu mode .....	100
4.3.3	Identification procedure .....	102
4.3.3.1	Identity request by the network.....	102
4.3.3.2	Identification response by the mobile station.....	102
4.3.3.3	Abnormal cases .....	102
4.3.4	IMSI detach procedure.....	103
4.3.4.0	General .....	103
4.3.4.1	IMSI detach initiation by the mobile station .....	103
4.3.4.2	IMSI detach procedure in the network .....	104
4.3.4.3	IMSI detach completion by the mobile station.....	104
4.3.4.4	Abnormal cases .....	104
4.3.5	Abort procedure .....	104
4.3.5.1	Abort procedure initiation by the network .....	104
4.3.5.2	Abort procedure in the mobile station.....	105
4.3.6	MM information procedure.....	105
4.3.6.1	MM information procedure initiation by the network.....	105
4.3.6.2	MM information procedure in the mobile station .....	105
4.4	MM specific procedures .....	105
4.4.1	Location updating procedure .....	105
4.4.2	Periodic updating .....	107
4.4.3	IMSI attach procedure .....	108
4.4.4	Generic Location Updating procedure.....	109
4.4.4.1	Location updating initiation by the mobile station.....	109
4.4.4.1a	Network Request for Additional mobile station Capability Information .....	109
4.4.4.2	Identification request from the network .....	109
4.4.4.3	Authentication by the network .....	109
4.4.4.4	Security mode setting by the network .....	109
4.4.4.5	Location Update Attempt Counter .....	109
4.4.4.6	Location updating accepted by the network.....	110
4.4.4.7	Location updating not accepted by the network.....	112
4.4.4.8	Release of RR connection after location updating .....	114
4.4.4.9	Abnormal cases on the mobile station side .....	114
4.4.4.10	Abnormal cases on the network side.....	116
4.4.5	Void.....	116
4.4.6	Void.....	116
4.4.7	eCall inactivity procedure.....	116
4.5	Connection management sublayer service provision .....	117
4.5.1	MM connection establishment.....	117
4.5.1.1	MM connection establishment initiated by the mobile station.....	117
4.5.1.2	Abnormal cases .....	121
4.5.1.3	MM connection establishment initiated by the network .....	122
4.5.1.3.1	Mobile Terminating CM Activity.....	122
4.5.1.3.2	Mobile Originating CM Activity \$(CCBS)\$ .....	123
4.5.1.3.3	Paging response in Iu mode (Iu mode only).....	124

4.5.1.3.4	Paging response for CS fallback.....	124
4.5.1.4	Abnormal cases .....	125
4.5.1.5	MM connection establishment for emergency calls.....	125
4.5.1.5a	MM connection establishment for emergency calls for CS fallback.....	126
4.5.1.6	Call re-establishment.....	126
4.5.1.6.1	Call re-establishment, initiation by the mobile station .....	126
4.5.1.6.2	Abnormal cases .....	128
4.5.1.7	Forced release during MO MM connection establishment .....	129
4.5.1.8	MM connection establishment due to SRVCC or vSRVCC handover .....	129
4.5.2	MM connection information transfer phase.....	130
4.5.2.1	Sending CM messages .....	130
4.5.2.2	Receiving CM messages .....	130
4.5.2.3	Abnormal cases .....	130
4.5.3	MM connection release.....	130
4.5.3.1	Release of associated RR connection.....	131
4.5.3.2	Uplink release in a voice group call.....	131
4.6	Receiving a MM STATUS message by a MM entity.....	131
4.7	Elementary mobility management procedures for GPRS services .....	131
4.7.1	General.....	131
4.7.1.1	Lower layer failure.....	131
4.7.1.2	Ciphering of messages (A/Gb mode only).....	132
4.7.1.2a	Integrity protection of layer 3 signalling messages (A/Gb mode only and when integrity protection is required).....	132
4.7.1.2a.1	General .....	132
4.7.1.2a.2	Integrity checking of GMM signalling messages in the MS .....	132
4.7.1.2a.3	Integrity checking of layer 3 signalling messages in the network .....	133
4.7.1.2a.4	Establishment of integrity protection of layer 3 signalling messages.....	134
4.7.1.2a.5	Optional establishment of integrity protection in the user plane .....	134
4.7.1.2a.6	Change of security keys.....	134
4.7.1.3	P-TMSI signature.....	135
4.7.1.4	Radio resource sublayer address handling .....	135
4.7.1.4.1	Radio resource sublayer address handling (A/Gb mode only) .....	135
4.7.1.5	P-TMSI handling.....	136
4.7.1.5.1	P-TMSI handling in A/Gb mode .....	136
4.7.1.5.2	P-TMSI handling in Iu mode.....	137
4.7.1.5.3	Void.....	137
4.7.1.5.4	Void.....	137
4.7.1.6	Change of network mode of operation.....	137
4.7.1.6.1	Change of network mode of operation in A/Gb mode (A/Gb mode only) .....	137
4.7.1.6.2	Change of network mode of operation in Iu mode (Iu mode only) .....	138
4.7.1.6.3	Change of network mode of operation at Iu mode to A/Gb mode inter-system change.....	138
4.7.1.6.4	Change of network mode of operation at A/Gb mode to Iu mode inter-system change.....	139
4.7.1.7	Intersystem change between A/Gb mode and Iu mode .....	139
4.7.1.7a	Intersystem change from S1 mode to A/Gb mode or S1 mode to Iu mode with ISR activated .....	140
4.7.1.8	List of forbidden PLMNs for GPRS service .....	141
4.7.1.8a	Establishment of the PS signalling connection (Iu mode only).....	141
4.7.1.9	Release of the PS signalling connection (Iu mode only).....	142
4.7.2	GPRS Mobility management timers and UMTS PS signalling connection control.....	142
4.7.2.1	READY timer behaviour.....	142
4.7.2.1.1	READY timer behaviour (A/Gb mode only).....	142
4.7.2.1.2	Handling of READY timer in the MS in Iu mode and S1 mode .....	144
4.7.2.1.2a	Handling of READY timer in the network in Iu mode and S1 mode .....	144
4.7.2.2	Periodic routing area updating .....	144
4.7.2.3	PMM-IDLE mode and PMM-CONNECTED mode (Iu mode only).....	146
4.7.2.4	Handling of <i>Force to standby</i> in Iu mode (Iu mode only).....	147
4.7.2.5	RA Update procedure for Signalling Connection Re-establishment (Iu mode only).....	147
4.7.2.6	Cell Update triggered by low layers.....	147
4.7.2.7	Handling of timer T3302.....	147
4.7.2.8	Handling of timer T3324 (A/Gb mode, Iu mode and S1 mode).....	147
4.7.2.9	Power saving mode .....	148
4.7.2.10	Extended idle-mode DRX cycle.....	149
4.7.2.11	Interaction between power saving mode and extended idle mode DRX cycle .....	149

4.7.2.12	Extended coverage for GSM .....	150
4.7.3	GPRS attach procedure .....	150
4.7.3.1	GPRS attach procedure for GPRS services .....	152
4.7.3.1.1	GPRS attach procedure initiation .....	152
4.7.3.1.2	GMM common procedure initiation .....	153
4.7.3.1.3	GPRS attach accepted by the network .....	153
4.7.3.1.4	GPRS attach not accepted by the network .....	157
4.7.3.1.4a	GPRS attach for emergency bearer services not accepted by the network (UTRAN Iu mode only) .....	161
4.7.3.1.4b	Attach for initiating a PDN connection for emergency bearer services not accepted by the network (UTRAN Iu mode only) .....	162
4.7.3.1.5	Abnormal cases in the MS .....	162
4.7.3.1.6	Abnormal cases on the network side .....	165
4.7.3.2	Combined GPRS attach procedure for GPRS and non-GPRS services .....	166
4.7.3.2.1	Combined GPRS attach procedure initiation .....	167
4.7.3.2.2	GMM Common procedure initiation .....	167
4.7.3.2.3	Combined GPRS attach accepted by the network .....	167
4.7.3.2.4	Combined GPRS attach not accepted by the network .....	169
4.7.3.2.5	Abnormal cases in the MS .....	173
4.7.3.2.6	Abnormal cases on the network side .....	174
4.7.4	GPRS detach procedure .....	174
4.7.4.0	General .....	174
4.7.4.1	MS initiated GPRS detach procedure .....	175
4.7.4.1.1	MS initiated GPRS detach procedure initiation .....	175
4.7.4.1.2	MS initiated GPRS detach procedure completion for GPRS services only .....	175
4.7.4.1.3	MS initiated combined GPRS detach procedure completion .....	175
4.7.4.1.4	Abnormal cases in the MS .....	176
4.7.4.1.5	Abnormal cases on the network side .....	178
4.7.4.2	Network initiated GPRS detach procedure .....	178
4.7.4.2.1	Network initiated GPRS detach procedure initiation .....	178
4.7.4.2.2	Network initiated GPRS detach procedure completion by the MS .....	178
4.7.4.2.3	Network initiated GPRS detach procedure completion by the network .....	183
4.7.4.2.4	Abnormal cases on the network side .....	183
4.7.5	Routing area updating procedure .....	184
4.7.5.1	Normal and periodic routing area updating procedure .....	186
4.7.5.1.1	Normal and periodic routing area updating procedure initiation .....	188
4.7.5.1.2	GMM Common procedure initiation .....	189
4.7.5.1.3	Normal and periodic routing area updating procedure accepted by the network .....	189
4.7.5.1.4	Normal and periodic routing area updating procedure not accepted by the network .....	195
4.7.5.1.4a	Routing area updating procedure for initiating a PDN connection for emergency bearer services not accepted by the network (UTRAN Iu mode only) .....	201
4.7.5.1.5	Abnormal cases in the MS .....	201
4.7.5.1.6	Abnormal cases on the network side .....	205
4.7.5.2	Combined routing area updating procedure .....	207
4.7.5.2.0	General .....	207
4.7.5.2.1	Combined routing area updating procedure initiation .....	207
4.7.5.2.2	GMM Common procedure initiation .....	209
4.7.5.2.3	Combined routing area updating procedure accepted by the network .....	209
4.7.5.2.4	Combined routing area updating not accepted by the network .....	211
4.7.5.2.5	Abnormal cases in the MS .....	216
4.7.5.2.6	Abnormal cases on the network side .....	217
4.7.6	P-TMSI reallocation procedure .....	217
4.7.6.0	General .....	217
4.7.6.1	P-TMSI reallocation initiation by the network .....	217
4.7.6.2	P-TMSI reallocation completion by the MS .....	217
4.7.6.3	P-TMSI reallocation completion by the network .....	217
4.7.6.3A	Abnormal cases in the MS .....	218
4.7.6.4	Abnormal cases on the network side .....	218
4.7.7	Authentication and ciphering procedure .....	219
4.7.7a	Authentication and ciphering procedure used for UMTS authentication challenge .....	219
4.7.7b	Authentication and ciphering procedure used for GSM authentication challenge .....	220
4.7.7c	Change of the ciphering algorithm at PS Handover .....	220



4.7.7.1	Authentication and ciphering initiation by the network .....	221
4.7.7.2	Authentication and ciphering response by the MS .....	222
4.7.7.3	Authentication and ciphering completion by the network.....	224
4.7.7.3a	128-bit packet-switched GSM ciphering key .....	225
4.7.7.3b	128-bit packet-switched GSM integrity key (in A/Gb mode and only if MS supports integrity protection) .....	225
4.7.7.4	GPRS ciphering key sequence number .....	226
4.7.7.5	Authentication not accepted by the network .....	227
4.7.7.5.1	Authentication not accepted by the MS .....	228
4.7.7.6	Abnormal cases .....	228
4.7.7.6.1	MS behaviour towards a network that has failed the authentication procedure.....	232
4.7.7.7	Use of established security contexts.....	233
4.7.7.8	Handling of keys at intersystem change from Iu mode to A/Gb mode .....	234
4.7.7.9	Handling of keys at intersystem change from A/Gb mode to Iu mode .....	234
4.7.7.10	Handling of keys at intersystem change from S1 mode to Iu mode or A/Gb mode .....	235
4.7.8	Identification procedure .....	237
4.7.8.1	Identification initiation by the network .....	237
4.7.8.2	Identification response by the MS .....	237
4.7.8.3	Identification completion by the network .....	237
4.7.8.3a	Abnormal cases in the MS .....	237
4.7.8.4	Abnormal cases on the network side .....	238
4.7.9	Paging procedure .....	239
4.7.9.1	Paging for GPRS services .....	239
4.7.9.1.1	Paging for GPRS services using P-TMSI .....	239
4.7.9.1.2	Paging for GPRS services using IMSI .....	240
4.7.9.2	Paging for non-GPRS services .....	241
4.7.10	Receiving a GMM STATUS message by a GMM entity .....	241
4.7.11	Void .....	241
4.7.12	GMM Information procedure .....	241
4.7.12.1	GMM information procedure initiation by the network .....	241
4.7.12.2	GMM information procedure in the mobile station .....	241
4.7.13	Service Request procedure (Iu mode only).....	241
4.7.13.1	Service Request procedure initiation.....	243
4.7.13.2	GMM common procedure initiation .....	244
4.7.13.3	Service request procedure accepted by the network.....	244
4.7.13.4	Service request procedure not accepted by the network.....	245
4.7.13.4a	Service request procedure for initiating a PDN connection for emergency bearer services not accepted by the network (UTRAN Iu mode only) .....	249
4.7.13.5	Abnormal cases in the MS .....	250
4.7.13.6	Abnormal cases on the network side .....	252
4.7.14	Void .....	253
5	Elementary procedures for circuit-switched Call Control .....	253
5.1	Overview .....	253
5.1.1	General.....	253
5.1.2	Call Control States .....	261
5.1.2.1	Call states at the mobile station side of the interface .....	261
5.1.2.1.1	Null (State U0) .....	261
5.1.2.1.2	MM Connection pending (U0.1) .....	261
5.1.2.1.2a	CC prompt present (U0.2) \$(CCBS)\$ .....	261
5.1.2.1.2b	Wait for network information (U0.3) \$(CCBS)\$ .....	261
5.1.2.1.2c	CC-Establishment present (U0.4) \$(CCBS)\$ .....	261
5.1.2.1.2d	CC-Establishment confirmed (U0.5) \$(CCBS)\$ .....	262
5.1.2.1.2e	Recall present (U0.6) \$(CCBS)\$ .....	262
5.1.2.1.3	Call initiated (U1).....	262
5.1.2.1.4	Mobile originating call proceeding (U3) .....	262
5.1.2.1.5	Call delivered (U4) .....	262
5.1.2.1.6	Call present (U6) .....	262
5.1.2.1.7	Call received (U7) .....	262
5.1.2.1.8	Connect Request (U8) .....	262
5.1.2.1.9	Mobile terminating call confirmed (U9).....	262
5.1.2.1.10	Active (U10).....	262

5.1.2.1.11	Disconnect request (U11) .....	262
5.1.2.1.12	Disconnect indication (U12).....	263
5.1.2.1.13	Release request (U19).....	263
5.1.2.1.14	Mobile originating modify (U26).....	263
5.1.2.1.15	Mobile terminating modify (U27) .....	263
5.1.2.2	Network call states .....	263
5.1.2.2.1	Null (State N0) .....	263
5.1.2.2.2	MM connection pending (N0.1) .....	263
5.1.2.2.2a	CC connection pending (N0.2) \$(CCBS)\$ .....	263
5.1.2.2.2b	Network answer pending (N0.3) \$(CCBS)\$ .....	263
5.1.2.2.2c	CC-Establishment present (N0.4) \$(CCBS)\$ .....	263
5.1.2.2.2d	CC-Establishment confirmed (N0.5) \$(CCBS)\$ .....	263
5.1.2.2.2e	Recall present (N0.6) \$(CCBS)\$ .....	263
5.1.2.2.3	Call initiated (N1).....	264
5.1.2.2.4	Mobile originating call proceeding (N3) .....	264
5.1.2.2.5	Call delivered (N4).....	264
5.1.2.2.6	Call present (N6) .....	264
5.1.2.2.7	Call received (N7) .....	264
5.1.2.2.8	Connect request (N8).....	264
5.1.2.2.9	Mobile terminating call confirmed (N9).....	264
5.1.2.2.10	Active (N10).....	264
5.1.2.2.11	Not used.....	264
5.1.2.2.12	Disconnect indication (N12).....	264
5.1.2.2.13	Release request (N19).....	264
5.1.2.2.14	Mobile originating modify (N26) .....	264
5.1.2.2.15	Mobile terminating modify (N27) .....	265
5.1.2.2.16	Connect Indication (N28) .....	265
5.2	Call establishment procedures .....	265
5.2.1	Mobile originating call establishment.....	265
5.2.1.1	Call initiation.....	266
5.2.1.2	Receipt of a setup message .....	266
5.2.1.3	Receipt of a CALL PROCEEDING message .....	268
5.2.1.4	Notification of progressing mobile originated call.....	268
5.2.1.4.1	Notification of interworking in connection with mobile originated call establishment.....	269
5.2.1.4.2	Call progress in the PLMN/ISDN environment .....	269
5.2.1.5	Alerting .....	269
5.2.1.6	Call connected.....	270
5.2.1.7	Call rejection.....	271
5.2.1.8	Transit network selection .....	271
5.2.1.9	Traffic channel assignment at mobile originating call establishment .....	271
5.2.1.10	Call queuing at mobile originating call establishment .....	271
5.2.1.11	Speech Codec Selection .....	271
5.2.1.12	Cellular Text telephone Modem (CTM) selection .....	272
5.2.2	Mobile terminating call establishment.....	273
5.2.2.1	Call indication .....	273
5.2.2.2	Compatibility checking .....	273
5.2.2.3	Call confirmation .....	273
5.2.2.3.1	Response to SETUP .....	273
5.2.2.3.2	Receipt of CALL CONFIRMED and ALERTING by the network .....	274
5.2.2.3.3	Call failure procedures .....	275
5.2.2.3.4	Called mobile station clearing during mobile terminating call establishment .....	275
5.2.2.4	Notification of interworking in connection with mobile terminating call establishment .....	275
5.2.2.5	Call accept.....	276
5.2.2.6	Active indication .....	276
5.2.2.7	Traffic channel assignment at mobile terminating call establishment.....	276
5.2.2.8	Call queuing at mobile terminating call establishment .....	277
5.2.2.9	User connection attachment during a mobile terminating call .....	277
5.2.2.10	Speech Codec Selection .....	277
5.2.2.11	Cellular Text telephone Modem (CTM) selection .....	277
5.2.3	Network initiated MO call \$(CCBS)\$ .....	277
5.2.3.1	Initiation.....	277
5.2.3.2	CC-Establishment present.....	278

5.2.3.2.1	Recall Alignment Procedure.....	279
5.2.3.3	CC-Establishment confirmation.....	280
5.2.3.4	Recall present.....	280
5.2.3.5	Traffic channel assignment during network initiated mobile originating call establishment.....	281
5.2.4	Call establishment for SRVCC or vSRVCC.....	281
5.2.4.1	General.....	281
5.2.4.2	Call activation for SRVCC.....	281
5.2.4.2a	Call activation for vSRVCC.....	282
5.2.4.2b	Multimedia CAT and vSRVCC handover.....	283
5.2.4.3	Traffic channel assignment and user connection attachment.....	283
5.2.4.4	State verification.....	284
5.3	Signalling procedures during the "active" state.....	284
5.3.1	User notification procedure.....	284
5.3.2	Call rearrangements.....	284
5.3.3	Codec Change Procedure.....	284
5.3.4	Support of Dual Services.....	284
5.3.4.1	Service Description.....	284
5.3.4.2	Call establishment.....	285
5.3.4.2.1	Mobile Originating Establishment.....	285
5.3.4.2.2	Mobile Terminating Establishment.....	286
5.3.4.3	Changing the Call Mode.....	286
5.3.4.3.1	Initiation of in-call modification.....	286
5.3.4.3.2	Successful completion of in-call modification.....	287
5.3.4.3.3	Change of the channel configuration.....	288
5.3.4.3.4	Failure of in-call modification.....	288
5.3.4.4	Abnormal procedures.....	288
5.3.5	User initiated service level up- and downgrading (A/Gb mode and GERAN Iu mode only).....	289
5.3.5.1	Initiation of service level up- and downgrading.....	289
5.3.5.2	Successful completion of service level up- and downgrading.....	289
5.3.5.3	Rejection of service level up- and downgrading.....	290
5.3.5.4	Time-out recovery.....	290
5.3.6	Support of multimedia calls.....	290
5.3.6.1	Service description.....	290
5.3.6.2	Call establishment.....	290
5.3.6.2.1	Mobile originated multimedia call establishment.....	290
5.3.6.2.2	Mobile terminating multimedia call.....	291
5.3.6.2.2.1	Fallback to speech.....	292
5.3.6.3	In-call modification in the "active" state.....	292
5.3.6.3.1	Void.....	293
5.3.6.3.2	Void.....	293
5.3.6.3.3	Void.....	293
5.3.6.4	Multimedia CAT during the alerting phase of a mobile originated call.....	293
5.3.6.5	DTMF transmission during a multimedia call.....	294
5.3.6.6	vSRVCC handover to a circuit-switched multimedia call.....	294
5.4	Call clearing.....	294
5.4.1	Terminology.....	294
5.4.2	Exception conditions.....	294
5.4.3	Clearing initiated by the mobile station.....	295
5.4.3.1	Initiation of call clearing.....	295
5.4.3.2	Receipt of a DISCONNECT message from the mobile station.....	295
5.4.3.3	Receipt of a RELEASE message from the network.....	295
5.4.3.4	Receipt of a RELEASE COMPLETE message from the mobile station.....	295
5.4.3.5	Abnormal cases.....	295
5.4.4	Clearing initiated by the network.....	296
5.4.4.1	Clearing initiated by the network: mobile does not support "Prolonged Clearing Procedure".....	296
5.4.4.1.1	Clearing when tones/announcements provided.....	296
5.4.4.1.2	Clearing when tones/announcements not provided.....	296
5.4.4.1.3	Completion of clearing.....	297
5.4.4.2	Clearing initiated by the network: mobile supports "Prolonged Clearing Procedure".....	297
5.4.4.2.1	Clearing when tones/announcements provided and the network does not indicate that "CCBS activation is possible".....	297
5.4.4.2.2	Clearing when the network indicates that "CCBS activation is possible".....	298

5.4.4.2.3	Clearing when tones/announcements are not provided and the network does not indicate that "CCBS activation is possible" .....	299
5.4.4.2.4	Receipt of a RELEASE message from the mobile station.....	299
5.4.4.2.5	Completion of clearing.....	300
5.4.5	Call clearing for SRVCC from CS to PS .....	300
5.5	Miscellaneous procedures .....	300
5.5.1	In-band tones and announcements .....	300
5.5.2	Call collisions .....	301
5.5.3	Status procedures .....	301
5.5.3.1	Status enquiry procedure.....	301
5.5.3.2	Reception of a STATUS message by a CC entity .....	302
5.5.3.2.1	STATUS message with incompatible state .....	302
5.5.3.2.2	STATUS message with compatible state .....	302
5.5.4	Call re-establishment, mobile station side .....	302
5.5.4.1	Indication from the mobility management sublayer.....	302
5.5.4.2	Reaction of call control .....	302
5.5.4.3	Completion of re-establishment .....	303
5.5.4.4	Unsuccessful outcome.....	303
5.5.5	Call re-establishment, network side.....	303
5.5.5.1	State alignment.....	303
5.5.6	Progress .....	303
5.5.7	DTMF protocol control procedure.....	303
5.5.7.1	Start DTMF request by the mobile station .....	304
5.5.7.2	Start DTMF response by the network .....	304
5.5.7.3	Stop DTMF request by the mobile station .....	304
5.5.7.4	Stop DTMF response by the network.....	304
5.5.7.5	Sequencing of subsequent start DTMF requests by the mobile station.....	304
6	Support for packet services .....	305
6.1	GPRS Session management .....	305
6.1.1	General.....	305
6.1.2	Session management states .....	306
6.1.2.1	Session management states in the MS.....	306
6.1.2.1.1	PDP-INACTIVE.....	306
6.1.2.1.2	PDP-ACTIVE-PENDING .....	306
6.1.2.1.3	PDP-INACTIVE-PENDING .....	306
6.1.2.1.4	PDP-ACTIVE.....	306
6.1.2.1.5	PDP-MODIFY_PENDING .....	306
6.1.2.1.6	MBMS-ACTIVE-PENDING .....	306
6.1.2.1.7	MBMS-ACTIVE .....	306
6.1.2.2	Session management states on the network side .....	308
6.1.2.2.1	PDP-INACTIVE.....	308
6.1.2.2.2	PDP-ACTIVE-PENDING .....	308
6.1.2.2.3	PDP-INACTIVE-PENDING.....	308
6.1.2.2.4	PDP-ACTIVE.....	308
6.1.2.2.5	PDP-MODIFY-PENDING .....	308
6.1.2.2.6	MBMS-ACTIVE-PENDING .....	309
6.1.2.2.7	MBMS-INACTIVE-PENDING .....	309
6.1.2.2.8	MBMS-ACTIVE .....	309
6.1.2A	PDP address allocation .....	310
6.1.2A.1	General .....	310
6.1.2A.1.1	Interworking with PDN based on IP.....	310
6.1.2A.1.2	Interworking with PDN based on PPP.....	310
6.1.2A.2	IP address allocation via NAS signalling .....	311
6.1.3	Session Management procedures .....	311
6.1.3.0	General .....	311
6.1.3.1	PDP context activation.....	311
6.1.3.1.1	Successful PDP context activation initiated by the mobile station.....	312
6.1.3.1.2	Successful PDP context activation requested by the network .....	314
6.1.3.1.3	Unsuccessful PDP context activation initiated by the MS.....	315
6.1.3.1.3.1	General.....	315
6.1.3.1.3.2	Handling of network rejection due to SM cause #26 .....	316

6.1.3.1.3.3	Handling of network rejection due to SM cause other than SM cause #26 .....	317
6.1.3.1.3A	Void.....	321
6.1.3.1.4	Unsuccessful PDP context activation requested by the network .....	321
6.1.3.1.5	Abnormal cases .....	321
6.1.3.1.6	Handling Activate PDP context request for MS configured for dual priority .....	323
6.1.3.2	Secondary PDP Context Activation Procedure .....	323
6.1.3.2.1	Successful Secondary PDP Context Activation Procedure Initiated by the MS.....	324
6.1.3.2.1a	Successful Secondary PDP Context Activation Procedure Requested by the network .....	324
6.1.3.2.2	Unsuccessful Secondary PDP Context Activation Procedure initiated by the MS.....	326
6.1.3.2.2.1	General.....	326
6.1.3.2.2.2	Handling of network rejection due to SM cause #26.....	326
6.1.3.2.2.3	Handling of network rejection due to SM cause other than SM cause #26 .....	328
6.1.3.2.2a	Unsuccessful secondary PDP context activation requested by the network .....	329
6.1.3.2.3	Abnormal cases .....	330
6.1.3.3	PDP context modification procedure .....	333
6.1.3.3.1	Network initiated PDP Context Modification .....	334
6.1.3.3.2	MS initiated PDP Context Modification accepted by the network.....	335
6.1.3.3.3	MS initiated PDP Context Modification not accepted by the network.....	336
6.1.3.3.3.1	General.....	336
6.1.3.3.3.2	Handling of network rejection due to SM cause #26.....	337
6.1.3.3.3.3	Handling of network rejection due to SM cause other than SM cause #26 .....	338
6.1.3.3.3a	Network initiated PDP Context Modification not accepted by the MS .....	339
6.1.3.3.4	Abnormal cases .....	340
6.1.3.4	PDP context deactivation procedure .....	345
6.1.3.4.1	PDP context deactivation initiated by the MS .....	345
6.1.3.4.2	PDP context deactivation initiated by the network.....	346
6.1.3.4.3	Abnormal cases .....	348
6.1.3.4a	Void.....	349
6.1.3.5	Void.....	349
6.1.3.5a	Notification procedure .....	349
6.1.3.5a.1	General .....	349
6.1.3.5a.2	Notification procedure initiation by the network.....	349
6.1.3.5a.3	Notification procedure in the MS .....	350
6.1.3.6	Receiving a SM STATUS message by a SM entity .....	350
6.1.3.7	Protocol configuration options .....	351
6.1.3.8	MBMS context activation .....	351
6.1.3.8.1	Successful MBMS context activation.....	351
6.1.3.8.2	Unsuccessful MBMS context activation requested by the MS.....	351
6.1.3.8.2.1	General.....	351
6.1.3.8.2.2	Handling of network rejection due to SM cause #26.....	352
6.1.3.8.2.3	Handling of network rejection due to SM cause other than SM cause #26 .....	353
6.1.3.8.3	Unsuccessful MBMS context activation requested by the network.....	354
6.1.3.8.4	Abnormal cases .....	354
6.1.3.9	MBMS context deactivation.....	355
6.1.3.9.1	MBMS context deactivation initiated by the network .....	355
6.1.3.9.2	Abnormal cases .....	355
6.1.3.10	MBMS protocol configuration options .....	356
6.1.3.11	Handling of APN based congestion control .....	356
6.1.3.11A	Handling of group specific session management congestion control.....	356
6.1.3.12	Handling session management request for MS configured for dual priority.....	356
6.1.3.13	Handling of network rejection not due to APN based congestion control .....	357
6.1.3.14	Handling of WLAN offload control.....	358
6.2	void.....	358
6.3	Coordination between SM and GMM for supporting ISR .....	358
6.4	MSISDN notification procedure.....	358
7	Examples of structured procedures .....	358
8	Handling of unknown, unforeseen, and erroneous protocol data .....	359
8.1	General .....	359
8.2	Message too short.....	359
8.3	Unknown or unforeseen transaction identifier .....	359

8.3.1	Call Control .....	359
8.3.2	Session Management .....	360
8.4	Unknown or unforeseen message type .....	361
8.5	Non-semantic mandatory information element errors .....	362
8.5.1	Radio resource management .....	362
8.5.2	Mobility management .....	362
8.5.3	Call control .....	362
8.5.4	GMM mobility management .....	363
8.5.5	Session management .....	363
8.6	Unknown and unforeseen IEs in the non-imperative message part .....	363
8.6.1	IEs unknown in the message .....	363
8.6.2	Out of sequence IEs .....	363
8.6.3	Repeated IEs .....	364
8.7	Non-imperative message part errors .....	364
8.7.1	Syntactically incorrect optional IEs .....	364
8.7.2	Conditional IE errors .....	364
8.8	Messages with semantically incorrect contents .....	364
9	Message functional definitions and contents .....	365
9.1	Messages for Radio Resources management .....	366
9.2	Messages for mobility management .....	366
9.2.1	Authentication reject .....	366
9.2.2	Authentication request .....	367
9.2.2.1	Authentication Parameter AUTN .....	367
9.2.3	Authentication response .....	367
9.2.3.1	Authentication Response Parameter .....	368
9.2.3.2	Authentication Response Parameter (extension) .....	368
9.2.3a	Authentication Failure .....	368
9.2.3a.1	Authentication Failure parameter .....	368
9.2.4	CM Re-establishment request .....	369
9.2.4.1	Location area identification .....	369
9.2.4.2	Mobile Station Classmark .....	369
9.2.4.3	Device properties .....	369
9.2.5	CM service accept .....	369
9.2.5a	CM service prompt \$(CCBS)\$ .....	370
9.2.6	CM service reject .....	370
9.2.6.1	T3246 value .....	371
9.2.7	CM service abort .....	371
9.2.8	Abort .....	371
9.2.9	CM service request .....	372
9.2.9.1	Mobile Station Classmark .....	372
9.2.9.2	Priority .....	372
9.2.9.3	Additional update parameters .....	372
9.2.9.4	Device properties .....	372
9.2.10	Identity request .....	373
9.2.11	Identity response .....	373
9.2.12	IMSI detach indication .....	373
9.2.12.1	Mobile Station Classmark .....	374
9.2.13	Location updating accept .....	374
9.2.13.1	Follow on proceed .....	374
9.2.13.2	CTS permission .....	375
9.2.13.3	Equivalent PLMNs .....	375
9.2.13.4	Emergency Number List .....	375
9.2.13.5	Per MS T3212 .....	375
9.2.14	Location updating reject .....	375
9.2.14.1	T3246 value .....	375
9.2.15	Location updating request .....	375
9.2.15.1	Location area identification .....	376
9.2.15.2	Mobile Station Classmark .....	376
9.2.15.3	Mobile Station Classmark for Iu mode .....	376
9.2.15.4	Additional update parameters .....	376
9.2.15.5	Device properties .....	376

9.2.15.6	MS network feature support .....	376
9.2.15a	MM information .....	377
9.2.15a.1	Full name for network .....	377
9.2.15a.2	Short name for network .....	377
9.2.15a.3	Local time zone .....	377
9.2.15a.4	Universal time and local time zone .....	377
9.2.15a.5	LSA Identity .....	378
9.2.15a.6	Network Daylight Saving Time .....	378
9.2.16	MM Status .....	378
9.2.17	TMSI reallocation command .....	378
9.2.18	TMSI reallocation complete .....	379
9.2.19	MM Null .....	379
9.3	Messages for circuit-switched call control .....	380
9.3.1	Alerting .....	380
9.3.1.1	Alerting (network to mobile station direction) .....	380
9.3.1.1.1	Facility .....	381
9.3.1.1.2	Progress indicator .....	381
9.3.1.1.3	User-user .....	381
9.3.1.2	Alerting (mobile station to network direction) .....	381
9.3.1.2.1	Facility .....	382
9.3.1.2.2	User-user .....	382
9.3.1.2.3	SS version .....	382
9.3.2	Call confirmed .....	382
9.3.2.1	Repeat indicator .....	383
9.3.2.2	Bearer capability 1 and bearer capability 2 .....	383
9.3.2.3	Cause .....	384
9.3.2.4	CC Capabilities .....	384
9.3.2.5	Stream Identifier .....	384
9.3.2.6	Supported Codecs .....	384
9.3.3	Call proceeding .....	384
9.3.3.1	Repeat indicator .....	384
9.3.3.2	Bearer capability 1 and bearer capability 2 .....	385
9.3.3.3	Facility .....	385
9.3.3.4	Progress Indicator .....	385
9.3.3.5	Priority granted .....	385
9.3.3.6	Network Call Control Capabilities .....	385
9.3.4	Congestion control .....	385
9.3.4.1	Cause .....	386
9.3.5	Connect .....	386
9.3.5.1	Connect (network to mobile station direction) .....	386
9.3.5.1.1	Facility .....	386
9.3.5.1.2	Progress indicator .....	386
9.3.5.1.3	User-user .....	386
9.3.5.2	Connect (mobile station to network direction) .....	386
9.3.5.2.1	Facility .....	387
9.3.5.2.2	User-user .....	387
9.3.5.2.3	SS version .....	387
9.3.5.2.4	Stream Identifier .....	387
9.3.6	Connect acknowledge .....	387
9.3.7	Disconnect .....	388
9.3.7.1	Disconnect (network to mobile station direction) .....	388
9.3.7.1.1	Facility .....	388
9.3.7.1.2	Progress indicator .....	388
9.3.7.1.3	User-user .....	388
9.3.7.1.4	Allowed actions \$(CCBS)\$ .....	388
9.3.7.2	Disconnect (mobile station to network direction) .....	389
9.3.7.2.1	Facility .....	389
9.3.7.2.2	User-user .....	389
9.3.7.2.3	SS version .....	389
9.3.8	Emergency setup .....	389
9.3.8.1	Bearer capability .....	390
9.3.8.2	Stream Identifier .....	390

9.3.8.3	Supported Codecs .....	390
9.3.8.4	Emergency category .....	390
9.3.9	Facility .....	390
9.3.9.1	Facility (network to mobile station direction) .....	390
9.3.9.2	Facility (mobile station to network direction) .....	391
9.3.9.2.1	SS version .....	391
9.3.10	Hold .....	392
9.3.11	Hold Acknowledge .....	392
9.3.12	Hold Reject .....	392
9.3.13	Modify .....	393
9.3.13.1	Low layer compatibility .....	393
9.3.13.2	High layer compatibility .....	393
9.3.13.3	Reverse call setup direction .....	393
9.3.13.4	Void .....	394
9.3.13.5	Network-initiated Service Upgrade indicator .....	394
9.3.14	Modify complete .....	394
9.3.14.1	Low layer compatibility .....	394
9.3.14.2	High layer compatibility .....	394
9.3.14.3	Reverse call setup direction .....	394
9.3.15	Modify reject .....	394
9.3.15.1	Low layer compatibility .....	395
9.3.15.2	High layer compatibility .....	395
9.3.16	Notify .....	395
9.3.17	Progress .....	395
9.3.17.1	User-user .....	396
9.3.17.2	Progress indicator .....	396
9.3.17a	CC-Establishment \$(CCBS)\$ .....	396
9.3.17a.1	Void .....	397
9.3.17a.2	Setup container .....	397
9.3.17b	CC-Establishment confirmed \$(CCBS)\$ .....	397
9.3.17b.1	Repeat indicator .....	397
9.3.17b.2	Bearer capability 1 and bearer capability 2 .....	398
9.3.17b.3	Cause .....	398
9.3.17b.4	Supported Codecs .....	398
9.3.18	Release .....	398
9.3.18.1	Release (network to mobile station direction) .....	398
9.3.18.1.1	Cause .....	398
9.3.18.1.2	Second cause .....	398
9.3.18.1.3	Facility .....	399
9.3.18.1.4	User-user .....	399
9.3.18.2	Release (mobile station to network direction) .....	399
9.3.18.2.1	Cause .....	399
9.3.18.2.2	Second cause .....	399
9.3.18.2.3	Facility .....	399
9.3.18.2.4	User-user .....	400
9.3.18.2.5	SS version .....	400
9.3.18a	Recall \$(CCBS)\$ .....	400
9.3.18a.1	Recall Type .....	400
9.3.18a.2	Facility .....	400
9.3.19	Release complete .....	400
9.3.19.1	Release complete (network to mobile station direction) .....	400
9.3.19.1.1	Cause .....	401
9.3.19.1.2	Facility .....	401
9.3.19.1.3	User-user .....	401
9.3.19.2	Release complete (mobile station to network direction) .....	401
9.3.19.2.1	Cause .....	402
9.3.19.2.2	Facility .....	402
9.3.19.2.3	User-user .....	402
9.3.19.2.4	SS version .....	402
9.3.20	Retrieve .....	402
9.3.21	Retrieve Acknowledge .....	403
9.3.22	Retrieve Reject .....	403



9.3.23	Setup .....	404
9.3.23.1	Setup (mobile terminated call establishment) .....	404
9.3.23.1.1	BC repeat indicator .....	405
9.3.23.1.2	Bearer capability 1 and bearer capability 2 .....	406
9.3.23.1.3	Facility .....	406
9.3.23.1.4	Progress indicator .....	406
9.3.23.1.4a	Called party BCD number .....	406
9.3.23.1.5	Called party subaddress .....	406
9.3.23.1.6	LLC repeat indicator .....	406
9.3.23.1.7	Low layer compatibility I .....	406
9.3.23.1.8	Low layer compatibility II .....	406
9.3.23.1.9	HLC repeat indicator .....	406
9.3.23.1.10	High layer compatibility i .....	406
9.3.23.1.11	High layer compatibility ii .....	407
9.3.23.1.12	User-user .....	407
9.3.23.1.13	Redirecting party BCD number .....	407
9.3.23.1.14	Redirecting party subaddress .....	407
9.3.23.1.15	Priority .....	407
9.3.23.1.16	Alert \$(Network Indication of Alerting in the MS)\$ .....	407
9.3.23.1.17	Network Call Control Capabilities .....	407
9.3.23.1.18	Cause of No CLI .....	407
9.3.23.1.19	Backup bearer capability .....	407
9.3.23.2	Setup (mobile originating call establishment) .....	407
9.3.23.2.1	BC repeat indicator .....	408
9.3.23.2.2	Facility .....	409
9.3.23.2.3	LLC repeat indicator .....	409
9.3.23.2.4	Low layer compatibility I .....	409
9.3.23.2.5	Low layer compatibility II .....	409
9.3.23.2.6	HLC repeat indicator .....	409
9.3.23.2.7	High layer compatibility i .....	409
9.3.23.2.8	High layer compatibility ii .....	409
9.3.23.2.9	User-user .....	409
9.3.23.2.10	SS version .....	409
9.3.23.2.11	CLIR suppression .....	409
9.3.23.2.12	CLIR invocation .....	410
9.3.23.2.13	CC Capabilities .....	410
9.3.23.2.14	Stream Identifier .....	410
9.3.23.2.15	Bearer capability 1 and bearer capability 2 .....	410
9.3.23.2.16	Supported Codecs .....	410
9.3.23.2.17	Redial .....	410
9.3.23a	Start CC \$(CCBS)\$ .....	410
9.3.23a.1	CC Capabilities .....	410
9.3.24	Start DTMF .....	411
9.3.25	Start DTMF Acknowledge .....	411
9.3.25.1	Keypad facility .....	411
9.3.26	Start DTMF reject .....	411
9.3.27	Status .....	412
9.3.27.1	Auxiliary states .....	412
9.3.28	Status enquiry .....	412
9.3.29	Stop DTMF .....	413
9.3.30	Stop DTMF acknowledge .....	413
9.3.31	User information .....	414
9.3.31.1	User-user .....	414
9.3.31.2	More data .....	414
9.4	GPRS Mobility Management Messages .....	414
9.4.1	Attach request .....	414
9.4.1.1	Old P-TMSI signature .....	416
9.4.1.2	Requested READY timer value .....	416
9.4.1.3	TMSI status .....	416
9.4.1.4	PS LCS Capability .....	416
9.4.1.5	UE network capability .....	416
9.4.1.6	Mobile station classmark 2 .....	416

9.4.1.7	Mobile station classmark 3.....	416
9.4.1.8	Supported Codexs .....	416
9.4.1.9	Additional mobile identity .....	416
9.4.1.10	Additional old routing area identification .....	416
9.4.1.11	Voice domain preference and UE's usage setting.....	416
9.4.1.12	Device properties .....	417
9.4.1.13	P-TMSI type.....	417
9.4.1.14	MS network feature support.....	417
9.4.1.15	Old location area identification .....	417
9.4.1.16	Additional update type .....	417
9.4.1.17	TMSI based NRI container .....	417
9.4.1.18	T3324 value.....	417
9.4.1.19	T3312 extended value .....	417
9.4.1.20	Extended DRX parameters.....	417
9.4.2	Attach accept .....	417
9.4.2.1	P-TMSI signature.....	419
9.4.2.2	Negotiated READY timer value .....	419
9.4.2.3	Allocated P-TMSI.....	419
9.4.2.4	MS identity.....	419
9.4.2.5	GMM cause.....	419
9.4.2.6	T3302 value.....	419
9.4.2.7	Cell Notification (A/Gb mode only) .....	419
9.4.2.8	Equivalent PLMNs.....	419
9.4.2.9	Network feature support.....	419
9.4.2.10	Emergency Number List .....	419
9.4.2.11	Requested MS Information .....	419
9.4.2.12	T3319 value.....	419
9.4.2.13	T3323 value.....	419
9.4.2.14	T3312 extended value .....	420
9.4.2.15	Additional network feature support.....	420
9.4.2.16	T3324 value.....	420
9.4.2.17	Extended DRX parameters.....	420
9.4.2.18	User Plane integrity indicator.....	420
9.4.2.19	Replayed MS network capability .....	420
9.4.2.20	Replayed MS radio access capability .....	420
9.4.3	Attach complete .....	420
9.4.3.1	Inter RAT handover information.....	421
9.4.3.2	E-UTRAN inter RAT handover information .....	421
9.4.4	Attach reject.....	421
9.4.4.1	T3302 value.....	421
9.4.4.2	T3346 value.....	422
9.4.5	Detach request .....	422
9.4.5.1	Detach request (mobile terminated detach).....	422
9.4.5.1.1	GMM cause.....	422
9.4.5.2	Detach request (mobile originating detach) .....	422
9.4.5.2.1	P-TMSI.....	423
9.4.5.2.2	P-TMSI signature .....	423
9.4.6	Detach accept.....	423
9.4.6.1	Detach accept (mobile terminated detach).....	423
9.4.6.2	Detach accept (mobile originating detach).....	423
9.4.7	P-TMSI reallocation command.....	424
9.4.7.1	P-TMSI signature .....	424
9.4.8	P-TMSI reallocation complete.....	424
9.4.9	Authentication and ciphering request .....	425
9.4.9.1	Authentication Parameter RAND.....	425
9.4.9.2	GPRS ciphering key sequence number .....	425
9.4.9.3	Authentication Parameter AUTN.....	426
9.4.9.4	Replayed MS network capability .....	426
9.4.9.5	Integrity algorithm .....	426
9.4.9.6	Message authentication code.....	426
9.4.9.7	Replayed MS Radio Access Capability.....	426
9.4.10	Authentication and ciphering response .....	426

9.4.10.1	Authentication Response Parameter.....	427
9.4.10.2	IMEISV .....	427
9.4.10.3	Authentication Response Parameter (extension).....	427
9.4.10.4	Message authentication code.....	427
9.4.10a	Authentication and Ciphering Failure .....	427
9.4.10a.1	Authentication Failure parameter .....	427
9.4.11	Authentication and ciphering reject .....	427
9.4.12	Identity request .....	428
9.4.13	Identity response.....	428
9.4.14	Routing area update request.....	429
9.4.14.1	Old P-TMSI signature .....	432
9.4.14.2	Requested READY timer value .....	432
9.4.14.3	DRX parameter .....	432
9.4.14.4	TMSI status .....	432
9.4.14.5	P-TMSI (Iu mode only).....	432
9.4.14.6	MS network capability .....	432
9.4.14.7	PDP context status .....	432
9.4.14.8	PS LCS Capability .....	432
9.4.14.9	MBMS context status .....	432
9.4.14.10	Additional mobile identity .....	432
9.4.14.11	Additional old routing area identification .....	432
9.4.14.12	UE network capability.....	432
9.4.14.13	Mobile station classmark 2.....	432
9.4.14.14	Mobile station classmark 3.....	433
9.4.14.15	Supported Codecs .....	433
9.4.14.16	Voice domain preference and UE's usage setting.....	433
9.4.14.17	P-TMSI type.....	433
9.4.14.18	Device properties .....	433
9.4.14.19	MS network feature support.....	433
9.4.14.20	Old location area identification .....	433
9.4.14.21	Additional update type .....	433
9.4.14.22	TMSI based NRI container .....	433
9.4.14.23	T3324 value.....	433
9.4.14.24	T3312 extended value .....	433
9.4.14.25	Extended DRX parameters.....	433
9.4.15	Routing area update accept .....	434
9.4.15.1	P-TMSI signature.....	436
9.4.15.2	Allocated P-TMSI.....	436
9.4.15.3	MS identity.....	436
9.4.15.4	List of Receive N-PDU Numbers.....	436
9.4.15.5	Negotiated READY timer value .....	436
9.4.15.6	GMM cause.....	436
9.4.15.7	T3302 value.....	436
9.4.15.8	Cell Notification (A/Gb mode only) .....	436
9.4.15.9	Equivalent PLMNs.....	436
9.4.15.10	PDP context status .....	436
9.4.15.11	Network feature support.....	436
9.4.15.12	Emergency Number List .....	437
9.4.15.13	MBMS context status.....	437
9.4.15.14	Requested MS Information .....	437
9.4.15.15	T3319 value.....	437
9.4.15.16	T3323 value.....	437
9.4.15.17	T3312 extended value .....	437
9.4.15.18	Additional network feature support.....	437
9.4.15.19	T3324 value.....	437
9.4.15.20	Extended DRX parameters.....	437
9.4.15.21	User Plane integrity indicator.....	437
9.4.15.22	Replayed MS network capability .....	437
9.4.15.23	Replayed MS Radio Access Capability.....	438
9.4.16	Routing area update complete.....	438
9.4.16.1	List of Receive N-PDU Numbers.....	438
9.4.16.2	Inter RAT handover information.....	438

9.4.16.3	E-UTRAN inter RAT handover information .....	438
9.4.17	Routing area update reject .....	438
9.4.17.1	T3302 value.....	439
9.4.17.2	T3346 value.....	439
9.4.18	GMM Status.....	439
9.4.19	GMM Information .....	440
9.4.19.1	Full name for network.....	440
9.4.19.2	Short name for network.....	440
9.4.19.3	Local time zone .....	440
9.4.19.4	Universal time and local time zone .....	440
9.4.19.5	LSA Identity.....	441
9.4.19.6	Network Daylight Saving Time .....	441
9.4.20	Service Request (Iu mode only).....	441
9.4.20.1	PDP context status .....	441
9.4.20.2	MBMS context status.....	441
9.4.20.3	Uplink data status.....	441
9.4.20.4	Device properties .....	441
9.4.21	Service Accept (Iu mode only) .....	442
9.4.21.1	PDP context status .....	442
9.4.21.2	MBMS context status .....	442
9.4.22	Service Reject (Iu mode only) .....	442
9.4.22.1	T3346 value.....	442
9.5	GPRS Session Management Messages.....	443
9.5.1	Activate PDP context request .....	443
9.5.1.1	Access point name.....	443
9.5.1.2	Protocol configuration options .....	443
9.5.1.3	Request type.....	443
9.5.1.4	Device properties .....	443
9.5.1.5	NBIFOM container .....	444
9.5.2	Activate PDP context accept.....	444
9.5.2.1	PDP address .....	444
9.5.2.2	Protocol configuration options .....	444
9.5.2.3	Packet Flow Identifier .....	445
9.5.2.4	SM cause .....	445
9.5.2.5	Connectivity type .....	445
9.5.2.6	WLAN offload indication .....	445
9.5.2.7	NBIFOM container .....	445
9.5.3	Activate PDP context reject.....	445
9.5.3.1	Protocol configuration options .....	446
9.5.3.2	Back-off timer value .....	446
9.5.3.3	Re-attempt indicator.....	446
9.5.3.4	NBIFOM container .....	446
9.5.4	Activate Secondary PDP Context Request .....	446
9.5.4.1	TFT .....	447
9.5.4.2	Protocol configuration options .....	447
9.5.4.3	Device properties .....	447
9.5.4.4	NBIFOM container .....	447
9.5.5	Activate Secondary PDP Context Accept.....	447
9.5.5.1	Packet Flow Identifier.....	447
9.5.5.2	Protocol configuration options .....	448
9.5.5.3	WLAN offload indication .....	448
9.5.5.4	NBIFOM container .....	448
9.5.6	Activate Secondary PDP Context Reject.....	448
9.5.6.1	Protocol configuration options .....	448
9.5.6.2	Back-off timer value .....	448
9.5.6.3	Re-attempt indicator.....	448
9.5.6.4	NBIFOM container .....	449
9.5.7	Request PDP context activation.....	449
9.5.7.1	Protocol configuration options .....	449
9.5.7.2	NBIFOM container .....	449
9.5.8	Request PDP context activation reject.....	449
9.5.8.1	Protocol configuration options .....	450

9.5.8.2	NBIFOM container .....	450
9.5.9	Modify PDP context request (Network to MS direction) .....	450
9.5.9.1	PDP address .....	451
9.5.9.2	Packet Flow Identifier .....	451
9.5.9.3	Protocol configuration options .....	451
9.5.9.4	TFT .....	451
9.5.9.5	WLAN offload indication .....	451
9.5.9.6	NBIFOM container .....	451
9.5.10	Modify PDP context request (MS to network direction) .....	451
9.5.10.1	Requested LLC SAPI .....	452
9.5.10.2	Requested new QoS .....	452
9.5.10.3	New TFT .....	452
9.5.10.4	Protocol configuration options .....	452
9.5.10.5	Device properties .....	452
9.5.10.6	NBIFOM container .....	452
9.5.11	Modify PDP context accept (MS to network direction) .....	452
9.5.11.1	Protocol configuration options .....	453
9.5.11.2	NBIFOM container .....	453
9.5.12	Modify PDP context accept (Network to MS direction) .....	453
9.5.12.1	Negotiated QoS .....	454
9.5.12.2	Negotiated LLC SAPI .....	454
9.5.12.3	New radio priority .....	454
9.5.12.4	Packet Flow Identifier .....	454
9.5.12.5	Protocol configuration options .....	454
9.5.12.6	WLAN offload indication .....	454
9.5.12.7	NBIFOM container .....	454
9.5.13	Modify PDP Context Reject .....	454
9.5.13.1	Protocol configuration options .....	455
9.5.13.2	Back-off timer value .....	455
9.5.13.3	Re-attempt indicator .....	455
9.5.13.4	NBIFOM container .....	455
9.5.14	Deactivate PDP context request .....	455
9.5.14.1	Tear down indicator .....	456
9.5.14.2	Protocol configuration options .....	456
9.5.14.3	MBMS protocol configuration options .....	456
9.5.14.4	T3396 value .....	456
9.5.14.5	WLAN offload indication .....	456
9.5.14.6	Void .....	456
9.5.15	Deactivate PDP context accept .....	456
9.5.15.1	Protocol configuration options .....	457
9.5.15.2	MBMS protocol configuration options .....	457
9.5.15.3	Void .....	457
9.5.15a	Request Secondary PDP Context Activation .....	457
9.5.15a.1	TFT .....	458
9.5.15a.2	Protocol configuration options .....	458
9.5.15a.3	WLAN offload indication .....	458
9.5.15a.4	NBIFOM container .....	458
9.5.15b	Request Secondary PDP Context Activation Reject .....	458
9.5.15b.1	Protocol configuration options .....	459
9.5.15b.2	NBIFOM container .....	459
9.5.16	Void .....	459
9.5.16a	Notification .....	459
9.5.17	Void .....	460
9.5.18	Void .....	460
9.5.19	Void .....	460
9.5.20	Void .....	460
9.5.21	SM Status .....	460
9.5.22	Activate MBMS Context Request .....	460
9.5.22.1	MBMS protocol configuration options .....	461
9.5.22.2	Device properties .....	461
9.5.23	Activate MBMS Context Accept .....	461
9.5.23.1	MBMS protocol configuration options .....	462

9.5.24	Activate MBMS Context Reject .....	462
9.5.24.1	MBMS protocol configuration options .....	462
9.5.24.2	Back-off timer value .....	462
9.5.24.3	Re-attempt indicator.....	462
9.5.25	Request MBMS Context Activation .....	462
9.5.25.1	Linked NSAPI.....	463
9.5.25.2	MBMS protocol configuration options .....	463
9.5.26	Request MBMS Context Activation Reject.....	463
9.5.26.1	MBMS protocol configuration options .....	463
10	General message format and information elements coding.....	464
10.1	Overview .....	464
10.2	Protocol Discriminator .....	464
10.3	Skip indicator and transaction identifier.....	464
10.3.1	Skip indicator.....	464
10.3.2	Transaction identifier.....	466
10.4	Message Type.....	466
10.5	Other information elements.....	469
10.5.1	Common information elements.....	470
10.5.1.1	Cell identity.....	470
10.5.1.2	Ciphering Key Sequence Number.....	471
10.5.1.3	Location Area Identification .....	471
10.5.1.4	Mobile Identity.....	473
10.5.1.5	Mobile Station Classmark 1 .....	478
10.5.1.6	Mobile Station Classmark 2 .....	481
10.5.1.7	Mobile Station Classmark 3 .....	484
10.5.1.8	Spare Half Octet.....	500
10.5.1.9	Descriptive group or broadcast call reference .....	500
10.5.1.10	Group Cipher Key Number.....	501
10.5.1.10a	PD and SAPI \$(CCBS)\$ .....	502
10.5.1.11	Priority Level .....	503
10.5.1.12	Core Network System Information (Iu mode only) .....	503
10.5.1.12.1	CN Common GSM-MAP NAS system information .....	503
10.5.1.12.2	CS domain specific system information .....	504
10.5.1.12.3	PS domain specific system information .....	504
10.5.1.13	PLMN list.....	505
10.5.1.14	NAS container for PS HO.....	506
10.5.1.15	MS network feature support.....	507
10.5.2	Radio Resource management information elements.....	508
10.5.3	Mobility management information elements.....	508
10.5.3.1	Authentication parameter RAND.....	508
10.5.3.1.1	Authentication Parameter AUTN (UMTS and EPS authentication challenge) .....	508
10.5.3.2	Authentication Response parameter.....	509
10.5.3.2.1	Authentication Response Parameter (extension) (UMTS authentication challenge only).....	510
10.5.3.2.2	Authentication Failure parameter (UMTS and EPS authentication challenge) .....	510
10.5.3.3	CM service type .....	511
10.5.3.4	Identity type .....	511
10.5.3.5	Location updating type.....	512
10.5.3.5a	Network Name .....	512
10.5.3.6	Reject cause.....	514
10.5.3.7	Follow-on Proceed .....	515
10.5.3.8	Time Zone .....	515
10.5.3.9	Time Zone and Time.....	516
10.5.3.10	CTS permission.....	517
10.5.3.11	LSA Identifier .....	518
10.5.3.12	Daylight Saving Time .....	518
10.5.3.13	Emergency Number List .....	519
10.5.3.14	Additional update parameters.....	520
10.5.3.15	Void.....	520
10.5.3.16	MM Timer.....	520
10.5.4	Call control information elements .....	521
10.5.4.1	Extensions of codesets .....	521

10.5.4.2	Locking shift procedure .....	522
10.5.4.3	Non-locking shift procedure.....	522
10.5.4.4	Auxiliary states .....	523
10.5.4.4a	Backup bearer capability.....	524
10.5.4.4a.1	Static conditions for the backup bearer capability IE contents .....	533
10.5.4.5	Bearer capability .....	533
10.5.4.5.1	Static conditions for the bearer capability IE contents .....	548
10.5.4.5a	Call Control Capabilities.....	548
10.5.4.6	Call state.....	549
10.5.4.7	Called party BCD number.....	550
10.5.4.8	Called party subaddress.....	552
10.5.4.9	Calling party BCD number .....	553
10.5.4.10	Calling party subaddress .....	554
10.5.4.11	Cause.....	555
10.5.4.11a	CLIR suppression.....	560
10.5.4.11b	CLIR invocation.....	561
10.5.4.12	Congestion level.....	561
10.5.4.13	Connected number .....	561
10.5.4.14	Connected subaddress .....	562
10.5.4.15	Facility .....	562
10.5.4.16	High layer compatibility .....	563
10.5.4.16.1	Static conditions for the high layer compatibility IE contents.....	564
10.5.4.17	Keypad facility .....	564
10.5.4.18	Low layer compatibility .....	564
10.5.4.19	More data .....	564
10.5.4.20	Notification indicator .....	565
10.5.4.21	Progress indicator.....	565
10.5.4.21a	Recall type \$(CCBS)\$ .....	566
10.5.4.21b	Redirecting party BCD number .....	567
10.5.4.21c	Redirecting party subaddress.....	567
10.5.4.22	Repeat indicator .....	568
10.5.4.22a	Reverse call setup direction.....	568
10.5.4.22b	SETUP Container \$(CCBS)\$ .....	569
10.5.4.23	Signal .....	569
10.5.4.24	SS Version Indicator .....	570
10.5.4.25	User-user .....	570
10.5.4.26	Alerting Pattern \$(NIA)\$ .....	571
10.5.4.27	Allowed actions \$(CCBS)\$.....	572
10.5.4.28	Stream Identifier .....	573
10.5.4.29	Network Call Control Capabilities.....	573
10.5.4.30	Cause of No CLI .....	574
10.5.4.31	Void.....	574
10.5.4.32	Supported codec list .....	574
10.5.4.33	Service category .....	575
10.5.4.34	Redial .....	576
10.5.4.35	Network-initiated Service Upgrade indicator.....	576
10.5.5	GPRS mobility management information elements.....	577
10.5.5.0	Additional update type .....	577
10.5.5.1	Attach result .....	577
10.5.5.2	Attach type .....	577
10.5.5.3	Ciphering algorithm .....	578
10.5.5.3a	Integrity algorithm .....	579
10.5.5.4	TMSI status .....	579
10.5.5.5	Detach type .....	580
10.5.5.6	DRX parameter .....	580
10.5.5.7	Force to standby .....	582
10.5.5.8	P-TMSI signature .....	583
10.5.5.8a	P-TMSI signature 2.....	583
10.5.5.9	Identity type 2 .....	584
10.5.5.10	IMEISV request .....	584
10.5.5.11	Receive N-PDU Numbers list .....	585
10.5.5.12	MS network capability .....	586

10.5.5.12a	MS Radio Access capability .....	590
10.5.5.13	Spare .....	609
10.5.5.14	GMM cause .....	609
10.5.5.15	Routing area identification .....	610
10.5.5.15a	Routing area identification 2 .....	612
10.5.5.16	Spare .....	613
10.5.5.17	Update result .....	613
10.5.5.18	Update type .....	614
10.5.5.19	A&C reference number .....	614
10.5.5.20	Service type .....	615
10.5.5.21	Cell Notification .....	615
10.5.5.22	PS LCS Capability .....	616
10.5.5.23	Network feature support .....	617
10.5.5.23A	Additional network feature support .....	617
10.5.5.24	Inter RAT information container .....	618
10.5.5.25	Requested MS information .....	618
10.5.5.26	UE network capability .....	619
10.5.5.27	E-UTRAN inter RAT information container .....	619
10.5.5.28	Voice domain preference and UE's usage setting .....	620
10.5.5.29	P-TMSI type .....	620
10.5.5.30	Location Area Identification 2 .....	621
10.5.5.31	Network resource identifier container .....	621
10.5.5.32	Extended DRX parameters .....	622
10.5.5.33	Message authentication code .....	626
10.5.5.34	User Plane integrity indicator .....	627
10.5.6	Session management information elements .....	627
10.5.6.1	Access point name .....	627
10.5.6.2	Network service access point identifier .....	628
10.5.6.3	Protocol configuration options .....	628
10.5.6.3.1	General .....	628
10.5.6.3.2	APN rate control parameters .....	636
10.5.6.4	Packet data protocol address .....	637
10.5.6.5	Quality of service .....	638
10.5.6.5A	Re-attempt indicator .....	648
10.5.6.6	SM cause .....	649
10.5.6.6A	SM cause 2 .....	650
10.5.6.7	Linked TI .....	651
10.5.6.8	Spare .....	651
10.5.6.9	LLC service access point identifier .....	651
10.5.6.10	Tear down indicator .....	652
10.5.6.11	Packet Flow Identifier .....	652
10.5.6.12	Traffic Flow Template .....	653
10.5.6.13	Temporary Mobile Group Identity (TMGI) .....	660
10.5.6.14	MBMS bearer capabilities .....	660
10.5.6.15	MBMS protocol configuration options .....	661
10.5.6.16	Enhanced network service access point identifier .....	662
10.5.6.17	Request type .....	662
10.5.6.18	Notification indicator .....	663
10.5.6.19	Connectivity type .....	664
10.5.6.20	WLAN offload acceptability .....	664
10.5.6.21	NBIFOM container .....	665
10.5.7	GPRS Common information elements .....	665
10.5.7.1	PDP context status .....	665
10.5.7.2	Radio priority .....	666
10.5.7.3	GPRS Timer .....	667
10.5.7.4	GPRS Timer 2 .....	667
10.5.7.4a	GPRS Timer 3 .....	668
10.5.7.5	Radio priority 2 .....	668
10.5.7.6	MBMS context status .....	669
10.5.7.7	Uplink data status .....	669
10.5.7.8	Device properties .....	670



11	List of system parameters.....	671
11.1	Timers and counters for radio resource management.....	671
11.2	Timers of mobility management .....	671
11.2.1	Timer T3240 and Timer T3241 .....	674
11.2.2	Timers of GPRS mobility management.....	675
11.2.3	Timers of GPRS session management.....	687
11.3	Timers of circuit-switched call control.....	692
<b>Annex A (informative): Example of subaddress information element coding.....</b>		<b>694</b>
<b>Annex B (normative): Compatibility checking.....</b>		<b>695</b>
B.1	Introduction .....	695
B.2	Calling side compatibility checking .....	695
B.2.1	Compatibility checking of the CM SERVICE REQUEST message .....	695
B.2.2	Compatibility/Subscription checking of the SETUP message .....	695
B.3	Called side compatibility checking .....	695
B.3.1	Compatibility checking with addressing information.....	696
B.3.2	Network-to-MS compatibility checking.....	696
B.3.3	User-to-User compatibility checking.....	696
B.4	High layer compatibility checking .....	696
<b>Annex C (normative): Low layer information coding principles.....</b>		<b>697</b>
C.1	Purpose .....	697
C.2	Principles.....	697
C.2.1	Definition of types of information.....	697
C.2.2	Examination by network .....	697
C.2.3	Location of type I information .....	698
C.2.4	Location of types II and III information .....	698
C.2.5	Relationship between bearer capability and low layer compatibility information elements .....	698
<b>Annex D (informative): Examples of bearer capability information element coding .....</b>		<b>699</b>
D.1	Coding for speech for a full rate support only mobile station .....	699
D.1.1	Mobile station to network direction .....	699
D.1.2	Network to mobile station direction .....	699
D.2	An example of a coding for modem access with V22-bis, 2,4 kbit/s, 8 bit no parity.....	700
D.2.1	Mobile station to network direction, data compression allowed .....	700
D.2.2	Network to mobile station direction, data compression possible .....	701
D.3	An example of a coding for group 3 facsimile (9,6 kbit/s, transparent).....	702
D.3.1	Mobile station to network direction .....	702
D.3.2	Network to mobile station direction .....	703
<b>Annex E (informative): Comparison between call control procedures specified in 3GPP TS 24.008 and ITU-T Recommendation Q.931.....</b>		<b>704</b>
<b>Annex F (informative): A/Gb mode specific cause values for radio resource management .....</b>		<b>708</b>
<b>Annex G (informative): 3GPP specific cause values for mobility management.....</b>		<b>709</b>
G.1	Causes related to MS identification.....	709
G.2	Cause related to subscription options.....	709
G.3	Causes related to PLMN specific network failures and congestion/Authentication Failures.....	710
G.4	Causes related to nature of request.....	710
G.5	Causes related to invalid messages .....	711
G.6	Additional cause codes for GMM .....	711

<b>Annex H (informative):</b>	<b>3GPP specific cause values for call control.....</b>	<b>713</b>
H.1	Normal class.....	713
H.1.1	Cause No. 1 "unassigned (unallocated) number" .....	713
H.1.2	Cause No. 3 "no route to destination" .....	713
H.1.3	Cause No. 6 "channel unacceptable" .....	713
H.1.4	Cause No. 8 "operator determined barring" .....	713
H.1.5	Cause No.16 "normal call clearing" .....	713
H.1.6	Cause No.17 "user busy" .....	713
H.1.7	Cause No. 18 "no user responding" .....	713
H.1.8	Cause No. 19 "user alerting, no answer" .....	713
H.1.9	Cause No. 21 "call rejected" .....	714
H.1.10	Cause No. 22 "number changed" .....	714
H.1.10a	Cause No. 24 "call rejected due to feature at the destination" .....	714
H.1.11	Cause No. 25 "pre-emption" .....	714
H.1.12	Cause No. 26 "non-selected user clearing" .....	714
H.1.13	Cause No. 27 "destination out of order" .....	714
H.1.14	Cause No. 28 "invalid number format (incomplete number)" .....	714
H.1.15	Cause No. 29 "facility rejected" .....	714
H.1.16	Cause No. 30 "response to STATUS ENQUIRY" .....	714
H.1.17	Cause No. 31 "normal, unspecified" .....	714
H.2	Resource unavailable class.....	715
H.2.1	Cause No. 34 "no circuit/channel available" .....	715
H.2.2	Cause No. 38 "network out of order" .....	715
H.2.3	Cause No. 41 "temporary failure" .....	715
H.2.4	Cause No. 42 "switching equipment congestion" .....	715
H.2.5	Cause No. 43 "access information discarded" .....	715
H.2.6	Cause No. 44 "requested circuit/channel not available" .....	715
H.2.7	Cause No. 47 "resource unavailable, unspecified" .....	715
H.3	Service or option not available class .....	715
H.3.1	Cause No. 49 "quality of service unavailable" .....	715
H.3.2	Cause No. 50 "Requested facility not subscribed" .....	715
H.3.3	Cause No. 55 "Incoming calls barred within the CUG" .....	716
H.3.4	Cause No. 57 "bearer capability not authorized" .....	716
H.3.5	Cause No. 58 "bearer capability not presently available" .....	716
H.3.6	Cause No. 63 "service or option not available, unspecified" .....	716
H.3.7	Cause No. 68 "ACM equal to or greater than ACMmax" .....	716
H.4	Service or option not implemented class.....	716
H.4.1	Cause No. 65 "bearer service not implemented" .....	716
H.4.2	Cause No. 69 "Requested facility not implemented" .....	716
H.4.3	Cause No. 70 "only restricted digital information bearer capability is available" .....	716
H.4.4	Cause No. 79 "service or option not implemented, unspecified" .....	716
H.5	Invalid message (e.g., parameter out of range) class.....	717
H.5.1	Cause No. 81 "invalid transaction identifier value" .....	717
H.5.2	Cause No. 87 "user not member of CUG" .....	717
H.5.3	Cause No. 88 "incompatible destination" .....	717
H.5.4	Cause No. 91 "invalid transit network selection" .....	717
H.5.5	Cause No. 95 "semantically incorrect message" .....	717
H.6	Protocol error (e.g., unknown message) class .....	717
H.6.1	Cause No. 96 "invalid mandatory information" .....	717
H.6.2	Cause No. 97 "message type non-existent or not implemented" .....	717
H.6.3	Cause No. 98 "message type not compatible with protocol state" .....	717
H.6.4	Cause No. 99 "information element non-existent or not implemented" .....	718
H.6.5	Cause No. 100 "conditional IE error" .....	718
H.6.6	Cause No. 101 "message not compatible with protocol state" .....	718
H.6.7	Cause No. 102 "recovery on timer expiry" .....	718
H.6.8	Cause No. 111 "protocol error, unspecified" .....	718
H.7	Interworking class .....	718

H.7.1	Cause No. 127 "interworking, unspecified" .....	718
<b>Annex I (informative):</b>	<b>GPRS specific cause values for GPRS Session Management.....</b>	<b>719</b>
I.1	Causes related to nature of request.....	719
I.2	Causes related to invalid messages .....	721
I.3	Void.....	722
<b>Annex J (informative):</b>	<b>Algorithm to encode frequency list information elements .....</b>	<b>723</b>
<b>Annex K (informative):</b>	<b>Default Codings of Information Elements .....</b>	<b>724</b>
K.1	Common information elements.....	724
K.2	Radio Resource management information elements.....	724
K.3	Mobility management information elements.....	724
K.4	Call control information elements.....	725
<b>Annex L (normative):</b>	<b>Establishment cause (Iu mode only).....</b>	<b>727</b>
L.1	Mapping of NAS procedure to RRC establishment cause(Iu mode only).....	727
<b>Annex M (normative):</b>	<b>Additional Requirements for backward compatibility with PCS 1900 for NA revision 0 ME.....</b>	<b>731</b>
<b>Annex N (normative):</b>	<b>Ranking of reject causes for Location Registration (MM and GMM) in a shared network .....</b>	<b>732</b>
<b>Annex O (normative):</b>	<b>3GPP capability exchange protocol.....</b>	<b>734</b>
O.1	Scope .....	734
O.2	User-user protocol contents.....	734
O.3	Information element identifier.....	734
O.4	Information elements.....	735
O.4.1	Personal ME identifier.....	735
O.4.2	Radio environment capability.....	736
O.4.3	UE capability version .....	736
O.4.4	IM Status .....	737
O.5	Handling of unknown, unforeseen, and erroneous protocol data .....	738
O.5.1	General .....	738
O.5.2	Not supported IEs, unknown IEs .....	738
O.5.3	Repeated IEs.....	738
O.5.4	Syntactically incorrect IEs.....	739
O.5.5	Semantically incorrect IEs.....	739
<b>Annex P (normative):</b>	<b>Mobility management for IMS voice termination .....</b>	<b>740</b>
P.1	Introduction .....	740
P.2	Activation of mobility management for IMS voice termination .....	740
P.3	Inter-system change between A/Gb mode and Iu mode.....	740
P.4	Inter-system change between A/Gb mode and S1 mode.....	741
P.5	Inter-system change between Iu mode and S1 mode .....	741
<b>Annex Q (normative):</b>	<b>Application specific Congestion control for Data Communication (ACDC) (Iu mode only) .....</b>	<b>742</b>
<b>Annex R (informative):</b>	<b>Change History .....</b>	<b>743</b>

History .....779

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## 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.

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## Introduction

The present document includes references to features which are not part of the Phase 2+ Release 96 of the GSM Technical specifications. All subclauses which were changed as a result of these features contain a marker (see table below) relevant to the particular feature.

The following table lists all features that were introduced after GSM Release 96.

Feature	Designator
BA Range IE handling	\$(impr-BA-range-handling)\$
Advanced Speech Call Item	\$(ASCI)\$
Call Completion Busy Subscriber	\$(CCBS)\$
Mobile Assisted Frequency Allocation	\$(MAFA)\$
Network Indication of Alerting in MS	\$(NIA)\$

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# 1 Scope

The present document specifies the procedures used at the radio interface core network protocols within the 3<sup>rd</sup> generation mobile telecommunications system and the digital cellular telecommunications system.

It specifies the procedures used at the radio interface (Reference Point Um or Uu, see 3GPP TS 24.002 [15] or 3GPP TS 23.002 [127]) for Call Control (CC), Mobility Management (MM), and Session Management (SM).

When the notations for "further study" or "FS" or "FFS" are present in this TS 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 control channels are described in 3GPP TS 44.003 [16] and 3GPP TS 25.301 [128].

The structured functions and procedures of this protocol and the relationship with other layers and entities are described in general terms in 3GPP TS 24.007 [20].

The present document specifies functions, procedures and information which apply to GERAN Iu mode. However, functionality related to GERAN Iu mode is neither maintained nor enhanced.

## 1.1 Scope of the Technical Specification

The procedures currently described in this TS are for the call control of circuit-switched connections, session management for GPRS services, mobility management and radio resource management for circuit-switched and GPRS services.

3GPP TS 24.010 [21] contains functional procedures for support of supplementary services.

3GPP TS 24.011 [22] contains functional procedures for support of point-to-point short message services.

3GPP TS 24.012 [23] contains functional description of short message - cell broadcast.

3GPP TS 44.060 [76] contains procedures for radio link control and medium access control (RLC/MAC) of packet data physical channels.

3GPP TS 44.071 [23a] contains functional descriptions and procedures for support of location 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 procedures defined in the present document apply to the interface structures defined in 3GPP TS 44.003 [16] and 3GPP TS 25.301 [128]. They use the functions and services provided by lower layers defined in 3GPP TS 44.005 [18] and 3GPP TS 44.006 [19] or 3GPP TS 25.331 [23c], 3GPP TS 25.322 [19b] and 3GPP TS 25.321 [19a].

3GPP TS 24.007 [20] gives the general description of layer 3 (A/Gb mode) and Non Access Stratum (Iu mode and S1 mode) 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.