



Technical Document

GSM PROTOCOL STACK

TEST SPECIFICATION

BMI (PART M)

Document Number:	xxxx.yyy.00.100
Version:	0.2
Status:	Draft
Approval Authority:	
Creation Date:	1998-Nov-10
Last changed:	2015-Mar-08 by XGUTTEFE
File Name:	bmim.doc

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Change History

Date	Changed by	Approved by	Version	Status	Notes
1998-Nov-10	LE, ES, VO		0.1		1
2003-May-12	XGUTTEFE		0.2	Draft	

Notes:

1. Initial version

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1.2 Abbreviations

AGCH	Access Grant Channel
BCCH	Broadcast Control Channel
BS	Base Station
BSIC	Base Station Identification Code
CBCH	Cell Broadcast Channel
CBQ	Cell Bar Qualify
CC	Call Control
CCCH	Common Control Channel
CCD	Condat Coder Decoder
CKSN	Ciphering Key Sequence Number
C/R	Command / Response

C1	Path Loss Criterion
C2	Reselection Criterion
DCCH	Dedicated Control Channel
DISC	Disconnect Frame
DL	Data Link Layer
DM	Disconnected Mode Frame
EA	Extension Bit Address Field
EL	Extension Bit Length Field
EMMI	Electrical Man Machine Interface
F	Final Bit
FACCH	Fast Associated Control Channel
FHO	Forced Handover
GP	Guard Period
GSM	Global System for Mobile Communication
HPLMN	Home Public Land Mobile Network
I	Information Frame
IMEI	International Mobile Equipment Identity
IMSI	International Mobile Subscriber Identity
Kc	Authentication Key
L	Length Indicator
LAI	Location Area Information
LPD	Link Protocol Discriminator
M	More Data Bit
MCC	Mobile Country Code
MM	Mobility Management
MMI	Man Machine Interface
MNC	Mobile Network Code
MS	Mobile Station
NCC	National Colour Code
NECI	New Establishment Causes included
N(R)	Receive Number
N(S)	Send Number
OTD	Observed Time Difference
P	Poll Bit
PCH	Paging Channel
PDU	Protocol Description Unit
P/F	Poll / Final Bit
PL	Physical Layer
PLMN	Public Land Mobile Network
RACH	Random Access Channel
REJ	Reject Frame
RNR	Receive Not Ready Frame
RR	Radio Resource Management
RR	Receive Ready Frame
RTD	Real Time Difference
SABM	Set Asynchronous Balanced Mode
SACCH	Slow Associated Control Channel
SAP	Service Access Point
SAPI	Service Access Point Identifier
SDCCH	Slow Dedicated Control Channel
SIM	Subscriber Identity Module
SMS	Short Message Service
SMSCB	Short Message Service Cell Broadcast
SS	Supplementary Services
TCH	Traffic Channel
TCH/F	Traffic Channel Full Rate
TCH/H	Traffic Channel Half Rate
TDMA	Time Division Multiple Access
TMSI	Temporary Mobile Subscriber Identity

UA	Unnumbered Acknowledgement Frame
UI	Unnumbered Information Frame
VPLMN	Visiting Public Land Mobile Network
V(A)	Acknowledgement State Variable
V(R)	Receive State Variable
V(S)	Send State Variable

1.3 Terms

Entity:	Program which executes the functions of a layer
Message:	A message is a data unit which is transferred between the entities of the same layer (peer-to-peer) of the mobile and infrastructure side. Message is used as a synonym to protocol data unit (PDU). A message may contain several information elements.
Primitive:	A primitive is a data unit which is transferred between layers on one component (mobile station or infrastructure). The primitive has an operation code which identifies the primitive and its parameters.
Service Access Point	A Service Access Point is a data interface between two layers on one component (mobile station or infrastructure).

2 Overview

The Protocol Stacks are used to define the functionality of the GSM protocols for interfaces. The GSM specifications are normative when used to describe the functionality of interfaces, but the stacks and the subdivision of protocol layers does not imply or restrict any implementation.

The base of the Protocol Stack rests on the physical layer.

The Data Link Layer (DL) is used to handle an acknowledged connection between mobile and base station. The LAPDm protocol is used.

Radio Resource (RR) manages the resources of the air-interface. That means configuration of physical layer, cell selection and cell reselection, data transfer, RR-Connection handling.

Mobility Management (MM) handles registration aspects for the mobile station. It detects changes of location areas and updates a mobile station in the new location area.

Call Control (CC) provides the call functionality. This includes call establishment, call maintenance procedures like Hold, Retrieve or Modify, and call disconnection.

Supplementary Services (SS) handles all call independent supplementary services like call forwarding or call barring.

Short Message Services (SMS) is used for sending and receiving point-to-point short messages. Additionally the reception of cell broadcast short messages is included.

The man machine interface (MMI) is the interface to the user. Normally it is connected with a keypad as input device and a display as output device.

Between the several entities data interfaces are defined. These data interfaces are called Service Access Points (SAPs), indicating that an upper layer uses the services of a lower layer.

The GSM specification do not set out any implementation of the Protocol Stack. The following diagrams show the implementation described in all these documents for the mobile station. All entities except the Man Machine Interface and Physical Layer are implemented as part of the Protocol Stack.

Error! Objects cannot be created from editing field codes.

Figure 1: Mobile-station protocol architecture

This document describes the tests for the whole protocol stack using the MMI Framework.

3 Parameters

```
#define REST_OCTET 0x2b
#define SAPI_0      0
#define SAPI_3      3
/*-----*\
| GSM 11.10
| 10 Generic call set up procedure
| 10.1 Generic call setup-up procedure for mobile terminating speech calls
| 10.1.2 Definition of system information messages
\*-----*/
/*-----*\
| Information Elements
\*-----*/
/*-----*\
| BCCH Frequency list:
| Indicates seven surrounding cells on any ARFCN of the supported
| band, excluding ARFCNs in or immediately adjacent to those
| specified in section 6.2 (GSM 11.10).
| From GSM 11.10, section 6.2 the following ARFCN are given :
|      10, 14, 17, 18, 22, 24, 26, 30, 31, 34, 38, 42, 45, 46, 50,
|      52, 54, 58, 59, 62, 66, 70, 73, 74, 78, 80, 82, 86, 87, 90,
|      94, 98, 101, 102, 106, 108, 110, 114
| The following 7 cells are chosen :
|      121,117,      76,      48,      12,7,1
| Thus BA is : 01100000 00000800 00008000 00000841
\*-----*/
IE_BEGIN(transaction_identifier_source)
    BF(4,M4(0,0,0,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source)

IE_BEGIN(transaction_identifier_dest)
    BF(4,M4(1,0,0,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest)

IE_BEGIN(sms_protocol_discriminator)
    BF(4,9,ACT_NOP,ANONYMOUS,SILENT)
IE_END(sms_protocol_discriminator)

IE_BEGIN(cp_data_message_type)
    BF(1,0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,0,ACT_NOP,ANONYMOUS,SILENT)
    BF(6,1,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cp_data_message_type)

IE_BEGIN(cp_user_data_sms_deliver_0)
    BF(8,38,ACT_CHECK,len,"length of cp user data")
    BF(5,0,ACT_CHECK,spare,"spare bits")
    BF(3,1,ACT_CHECK,mti,"rp data network to mobile")
    BF(8,22,ACT_CHECK,msg_ref,"message reference")
    BF(8,7,ACT_CHECK,rp_orig_len,"rp originator address")
    BF(1,1,ACT_CHECK,rp_orig_ext,"Extension Bit")
    BF(3,0,ACT_CHECK,rp_orig_type_of_number,"Unknown")
    BF(4,1,ACT_CHECK,rp_orig_numbering_plan,"ISDN/telephony")
    BF(4,3,ACT_CHECK,rp_orig_digit_2,"Digit 2")
    BF(4,0,ACT_CHECK,rp_orig_digit_1,"Digit 1")
    BF(4,3,ACT_CHECK,rp_orig_digit_4,"Digit 4")
    BF(4,0,ACT_CHECK,rp_orig_digit_3,"Digit 3")
```

```

BF(4,0, ACT_CHECK, rp_orig_digit_6, "Digit 6")
BF(4,9, ACT_CHECK, rp_orig_digit_5, "Digit 5")
BF(4,4, ACT_CHECK, rp_orig_digit_8, "Digit 8")
BF(4,9, ACT_CHECK, rp_orig_digit_7, "Digit 7")
BF(4,1, ACT_CHECK, rp_orig_digit_10, "Digit 10")
BF(4,1, ACT_CHECK, rp_orig_digit_9, "Digit 9")
BF(4,0xF, ACT_CHECK, rp_orig_digit_12, "Digit 12")
BF(4,0x7, ACT_CHECK, rp_orig_digit_11, "Digit 11")
BF(8, 0, ACT_CHECK, rp_dest_len, "rp destination address")
BF(8,26, ACT_CHECK, rp_user_data_len, "rp user data len")
BF(1, 1, ACT_CHECK, tp_rp, "reply path")
BF(1, 0, ACT_CHECK, tp_udhi, "no user data header indicator")
BF(1, 0, ACT_CHECK, tp_sri, "no status report indication")
BF(2, 0, ACT_CHECK, tp_spare, "spare bits")
BF(1, 0, ACT_CHECK, tp_mms, "no more messages to send")
BF(2, 0, ACT_CHECK, tp_mti, "sms deliver")
BF(8, 8, ACT_CHECK, tp_oa_len, "tp oa with eight digits")
BF(1, 1, ACT_CHECK, tp_oa_ext, "Extension Bit")
BF(3, 0, ACT_CHECK, tp_oa_type_of_number, "Unknown")
BF(4, 1, ACT_CHECK, tp_oa_numbering_plan, "ISDN/telephony")
BF(4,3, ACT_CHECK, tp_oa_digit_2, "Digit 2")
BF(4,0, ACT_CHECK, tp_oa_digit_1, "Digit 1")
BF(4,3, ACT_CHECK, tp_oa_digit_4, "Digit 4")
BF(4,0, ACT_CHECK, tp_oa_digit_3, "Digit 3")
BF(4,0, ACT_CHECK, tp_oa_digit_6, "Digit 6")
BF(4,9, ACT_CHECK, tp_oa_digit_5, "Digit 5")
BF(4,4, ACT_CHECK, tp_oa_digit_8, "Digit 8")
BF(4,9, ACT_CHECK, tp_oa_digit_7, "Digit 7")
BF(8,0x41, ACT_CHECK, tp_pd, "protocol identifier")
BF(8, 0xF0, ACT_CHECK, tp_dcs, "data coding scheme")
BF(8, 0x89, ACT_CHECK, tp_scts_year, "year 98")
BF(8, 0x40, ACT_CHECK, tp_scts_month, "month 04")
BF(8, 0x61, ACT_CHECK, tp_scts_day, "day 16")
BF(8, 0x01, ACT_CHECK, tp_scts_hour, "hour 10")
BF(8, 0x51, ACT_CHECK, tp_scts_minute, "minute 15")
BF(8, 0x43, ACT_CHECK, tp_scts_second, "second 34")
BF(8, 0x00, ACT_CHECK, tp_scts_timezone, "zone 00")
BF(8, 0x0A, ACT_CHECK, tp_ud_len, "characters in sms")
BF(8, 0xC8, ACT_CHECK, tp_ud_1, "SMS Halli Hallo")
BF(8, 0x20, ACT_CHECK, tp_ud_2, SILENT)
BF(8, 0x93, ACT_CHECK, tp_ud_3, SILENT)
BF(8, 0x99, ACT_CHECK, tp_ud_4, SILENT)
BF(8, 0x44, ACT_CHECK, tp_ud_5, SILENT)
BF(8, 0x06, ACT_CHECK, tp_ud_6, SILENT)
BF(8, 0x99, ACT_CHECK, tp_ud_7, SILENT)
BF(8, 0xCC, ACT_CHECK, tp_ud_8, SILENT)
BF(8, 0x27, ACT_CHECK, tp_ud_9, SILENT)
IE_END(cp_user_data_sms_deliver_0)

IE_BEGIN(cp_user_data_sms_deliver_2)
BF(8,38, ACT_CHECK, len, "length of cp user data")
BF(5, 0, ACT_CHECK, spare, "spare bits")
BF(3, 1, ACT_CHECK, mti, "rp data network to mobile")
BF(8, 22, ACT_CHECK, msg_ref, "message reference")
BF(8, 7, ACT_CHECK, rp_orig_len, "rp originator address")
BF(1, 1, ACT_CHECK, rp_orig_ext, "Extension Bit")
BF(3, 0, ACT_CHECK, rp_orig_type_of_number, "Unknown")
BF(4, 1, ACT_CHECK, rp_orig_numbering_plan, "ISDN/telephony")
BF(4,3, ACT_CHECK, rp_orig_digit_2, "Digit 2")

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BF(4,0, ACT_CHECK, rp_orig_digit_1, "Digit 1")
BF(4,3, ACT_CHECK, rp_orig_digit_4, "Digit 4")
BF(4,0, ACT_CHECK, rp_orig_digit_3, "Digit 3")
BF(4,0, ACT_CHECK, rp_orig_digit_6, "Digit 6")
BF(4,9, ACT_CHECK, rp_orig_digit_5, "Digit 5")
BF(4,4, ACT_CHECK, rp_orig_digit_8, "Digit 8")
BF(4,9, ACT_CHECK, rp_orig_digit_7, "Digit 7")
BF(4,1, ACT_CHECK, rp_orig_digit_10, "Digit 10")
BF(4,1, ACT_CHECK, rp_orig_digit_9, "Digit 9")
BF(4,0xF, ACT_CHECK, rp_orig_digit_12, "Digit 12")
BF(4,0x7, ACT_CHECK, rp_orig_digit_11, "Digit 11")
BF(8,0, ACT_CHECK, rp_dest_len, "rp destination address")
BF(8,26, ACT_CHECK, rp_user_data_len, "rp user data len")
BF(1,1, ACT_CHECK, tp_rp, "reply path")
BF(1,0, ACT_CHECK, tp_udhi, "no user data header indicator")
BF(1,0, ACT_CHECK, tp_sri, "no status report indication")
BF(2,0, ACT_CHECK, tp_spare, "spare bits")
BF(1,0, ACT_CHECK, tp_mms, "no more messages to send")
BF(2,0, ACT_CHECK, tp_mti, "sms deliver")
BF(8,8, ACT_CHECK, tp_oa_len, "tp oa with eight digits")
BF(1,1, ACT_CHECK, tp_oa_ext, "Extension Bit")
BF(3,0, ACT_CHECK, tp_oa_type_of_number, "Unknown")
BF(4,1, ACT_CHECK, tp_oa_numbering_plan, "ISDN/telephony")
BF(4,3, ACT_CHECK, tp_oa_digit_2, "Digit 2")
BF(4,0, ACT_CHECK, tp_oa_digit_1, "Digit 1")
BF(4,3, ACT_CHECK, tp_oa_digit_4, "Digit 4")
BF(4,0, ACT_CHECK, tp_oa_digit_3, "Digit 3")
BF(4,0, ACT_CHECK, tp_oa_digit_6, "Digit 6")
BF(4,9, ACT_CHECK, tp_oa_digit_5, "Digit 5")
BF(4,4, ACT_CHECK, tp_oa_digit_8, "Digit 8")
BF(4,9, ACT_CHECK, tp_oa_digit_7, "Digit 7")
BF(8,0x41, ACT_CHECK, tp_pd, "protocol identifier")
BF(8,0xF2, ACT_CHECK, tp_dcs, "data coding scheme")
BF(8,0x89, ACT_CHECK, tp_scts_year, "year 98")
BF(8,0x40, ACT_CHECK, tp_scts_month, "month 04")
BF(8,0x61, ACT_CHECK, tp_scts_day, "day 16")
BF(8,0x01, ACT_CHECK, tp_scts_hour, "hour 10")
BF(8,0x51, ACT_CHECK, tp_scts_minute, "minute 15")
BF(8,0x43, ACT_CHECK, tp_scts_second, "second 34")
BF(8,0x00, ACT_CHECK, tp_scts_timezone, "zone 00")
BF(8,0x0A, ACT_CHECK, tp_ud_len, "characters in sms")
BF(8,0xC8, ACT_CHECK, tp_ud_1, "SMS Halli Hallo")
BF(8,0x20, ACT_CHECK, tp_ud_2, SILENT)
BF(8,0x93, ACT_CHECK, tp_ud_3, SILENT)
BF(8,0x99, ACT_CHECK, tp_ud_4, SILENT)
BF(8,0x44, ACT_CHECK, tp_ud_5, SILENT)
BF(8,0x06, ACT_CHECK, tp_ud_6, SILENT)
BF(8,0x99, ACT_CHECK, tp_ud_7, SILENT)
BF(8,0xCC, ACT_CHECK, tp_ud_8, SILENT)
BF(8,0x27, ACT_CHECK, tp_ud_9, SILENT)
IE_END(cp_user_data_sms_deliver_2)

IE_BEGIN(cp_ack_message_type)
BF(1,0, ACT_CHECK, ANONYMOUS, SILENT)
BF(1,0, ACT_NOP, ANONYMOUS, SILENT)
BF(6,4, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(cp_ack_message_type)

IE_BEGIN(cp_user_data_rp_ack_to_bs)

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BF(8, 2, ACT_CHECK, len, "length of cp user data")
BF(5, 0, ACT_CHECK, spare, "spare bits")
BF(3, 3, ACT_CHECK, mti, "rp ack mobile to network")
BF(8, 22, ACT_CHECK, msg_ref, "message reference")
IE_END(cp_user_data_rp_ack_to_bs)

IE BEGIN(cp user data sms submit)

BF(8,0x17, ACT_CHECK, len, "length of cp user data")
BF(5, 0, ACT_CHECK, spare, "spare bits")
BF(3, 0, ACT_CHECK, mti, "rp data mobile to mobile")
BF(8,2, ACT_CHECK, msg_ref, "message reference")
BF(8, 0, ACT_CHECK, rp_orig_len, "rp originator address")
BF(8, 1, ACT_CHECK, rp_dest_len, "rp destination address")
BF(1, 1, ACT_CHECK, rp_dest_ext, "Extension Bit")
BF(3, 0, ACT_CHECK, rp_dest_type_of_number, "Unknown")
BF(4, 0, ACT_CHECK, rp_dest_numbering_plan, "ISDN/telephony")
BF(8,17, ACT_CHECK, rp_user_data_len, "rp user data len")
BF(1, 0, ACT_CHECK, tp_rp, "reply path")
BF(1, 0, ACT_CHECK, tp_udhi, "no user data header indicator")
BF(1, 0, ACT_CHECK, tp_srr, "no status report request")
BF(2, 2, ACT_CHECK, tp_vpf, "relative validity period format")
BF(1, 0, ACT_CHECK, tp_rd, "no reject duplicates")
BF(2, 1, ACT_CHECK, tp_mti, "sms submit")
BF(8, 2, ACT_CHECK, tp_msg_ref, "tp message reference")
BF(8, 11, ACT_CHECK, tp_da_len, "tp da with four digits")
BF(1, 1, ACT_CHECK, tp_da_ext, "Extension Bit")
BF(3, 0, ACT_CHECK, tp_da_type_of_number, "Unknown")
BF(4, 1, ACT_CHECK, tp_da_numbering_plan, "ISDN/telephony")
BF(4,1, ACT_CHECK, tp_da_digit_2, "Digit 2")
BF(4,0, ACT_CHECK, tp_da_digit_1, "Digit 1")
BF(4,2, ACT_CHECK, tp_da_digit_4, "Digit 4")
BF(4,7, ACT_CHECK, tp_da_digit_3, "Digit 3")
BF(4,8, ACT_CHECK, tp_da_digit_4, "Digit 6")
BF(4,3, ACT_CHECK, tp_da_digit_3, "Digit 5")
BF(4,8, ACT_CHECK, tp_da_digit_4, "Digit 8")
BF(4,3, ACT_CHECK, tp_da_digit_3, "Digit 7")
BF(4,9, ACT_CHECK, tp_da_digit_4, "Digit 10")
BF(4,9, ACT_CHECK, tp_da_digit_3, "Digit 9")
BF(4,15, ACT_CHECK, tp_da_digit_4, "not used")
BF(4,9, ACT_CHECK, tp_da_digit_3, "Digit 11")
BF(8, 0, ACT_CHECK, tp_pd, "protocol identifier")
BF(8, 0, ACT_CHECK, tp_dcs, "data coding scheme")
BF(8, 0xa7, ACT_CHECK, tp_vp, "relative time default")
BF(8, 0x03, ACT_CHECK, tp_ud_len, "characters in sms")
BF(8, 0x33, ACT_CHECK, tp_ud_1, "SMS Halli Hallo")
BF(8, 0x59, ACT_CHECK, tp_ud_2, SILENT)
BF(8, 0x0C, ACT_CHECK, tp_ud_3, SILENT)
IE_END(cp_user_data_sms_submit)

IE BEGIN(cp user data sms command)

BF(8,0x14, ACT_CHECK, len, "length of cp user data")
BF(5, 0, ACT_CHECK, spare, "spare bits")
BF(3, 0, ACT_CHECK, mti, "rp data mobile to mobile")
BF(8, 3, ACT_CHECK, msg_ref, "message reference")
BF(8, 0, ACT_CHECK, rp_orig_len, "rp originator address")
BF(8, 1, ACT_CHECK, rp_dest_len, "rp destination address")
BF(1, 1, ACT_CHECK, rp_dest_ext, "Extension Bit")
BF(3, 0, ACT_CHECK, rp_dest_type_of_number, "Unknown")
BF(4, 0, ACT_CHECK, rp_dest_numbering_plan, "ISDN/telephony")

BF(8,0x0e,ACT_CHECK,rp_user_data_len,"rp user data len")
BF(1,0,ACT_CHECK,tp_rp,"reply path")
BF(1,0,ACT_CHECK,tp_udhi,"no user data header indicator")
BF(1,0,ACT_CHECK,tp_srr,"no status report request")
BF(2,0,ACT_CHECK,tp_vpf,"no validity period format")
BF(1,0,ACT_CHECK,tp_rd,"no reject duplicates")
BF(2,2,ACT_CHECK,tp_mti,"sms command")
BF(8,3,ACT_CHECK,tp_msg_ref,"tp message reference")
BF(8,0,ACT_CHECK,tp_pid,"protocol identifier")
BF(8,2,ACT_CHECK,tp_pid,"command type")
BF(8,2,ACT_CHECK,tp_pid,"message number")
BF(8,11,ACT_CHECK,tp_da_len,"tp da with eleven digits")
BF(1,1,ACT_CHECK,tp_da_ext,"Extension Bit")
BF(3,0,ACT_CHECK,tp_da_type_of_number,"Unknown")
BF(4,1,ACT_CHECK,tp_da_numbering_plan,"ISDN/telephony")
BF(4,1,ACT_CHECK,tp_da_digit_2,"Digit 2")
BF(4,0,ACT_CHECK,tp_da_digit_1,"Digit 1")
BF(4,2,ACT_CHECK,tp_da_digit_4,"Digit 4")
BF(4,7,ACT_CHECK,tp_da_digit_3,"Digit 3")
BF(4,8,ACT_CHECK,tp_da_digit_4,"Digit 6")
BF(4,3,ACT_CHECK,tp_da_digit_3,"Digit 5")
BF(4,8,ACT_CHECK,tp_da_digit_4,"Digit 8")
BF(4,3,ACT_CHECK,tp_da_digit_3,"Digit 7")
BF(4,9,ACT_CHECK,tp_da_digit_4,"Digit 10")
BF(4,9,ACT_CHECK,tp_da_digit_3,"Digit 9")
BF(4,15,ACT_CHECK,tp_da_digit_4,"not used")
BF(4,9,ACT_CHECK,tp_da_digit_3,"Digit 11")
BF(8,0,ACT_CHECK,tp_cmd_len,"command data length")
IE END(cp_user_data_sms_command)

IE BEGIN(cp_user_data_rp_ack_to_ms)
BF(8,2,ACT_CHECK,len,"length of cp user data")
BF(5,0,ACT_CHECK,spare,"spare bits")
BF(3,3,ACT_CHECK,mti,"rp ack network to mobile")
BF(8,2,ACT_CHECK,msg_ref,"message reference")
IE END(cp_user_data_rp_ack_to_ms)

IE_BEGIN(bcch_frequency_list)
BF(32,0x01100000,ACT_CHECK,ANONYMOUS,"bit 128 thru 97")
BF(32,0x00000800,ACT_CHECK,ANONYMOUS,"bit 96 thru 65")
BF(32,0x00008000,ACT_CHECK,ANONYMOUS,"bit 64 thru 33")
BF(32,0x00000841,ACT_CHECK,ANONYMOUS,"bit 32 thru 1")
IE_END(bcch_frequency_list)
IE_BEGIN(cell_channel_description)
BF(32,0x00000000,ACT_CHECK,ANONYMOUS,"Includes the ")
BF(32,0x00000000,ACT_CHECK,ANONYMOUS,"hopping sequence ")
BF(32,0x00000000,ACT_CHECK,ANONYMOUS,"ARFCNs, if hopping ")
BF(32,0x00000000,ACT_CHECK,ANONYMOUS,"is used. ")
IE_END(cell_channel_description)
IE_BEGIN(cell_identity)
BF(16,0x0001,ACT_CHECK,ANONYMOUS,"CI VALUE 0001 hex (not relevant)")
IE_END(cell_identity)
IE_BEGIN(cell_identity_B)
BF(16,0x0002,ACT_CHECK,ANONYMOUS,"CI VALUE 0002 hex (not relevant)")
IE_END(cell_identity_B)
IE_BEGIN(cell_options)
BF(1,0,ACT_CHECK,ANONYMOUS,"spare ")
BF(1,0,ACT_CHECK,pwrc,"power control not set")
BF(2,2,ACT_CHECK,dtx,"MS must not use DTX ")

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        BF(4,1,ACT_CHECK,radio_link_time_out ,"8")
    IE_END(cell_options)
    IE_BEGIN(cell_selection_parameter)
        BF(3, 0,ACT_CHECK,cell_reselect_hysteresis,"0 dB")
        BF(5, 0,ACT_CHECK,ms_txpwr_max_cch ,"Max. output power of MS")
        BF(1, 0,ACT_CHECK,acs ,"no additional cell params")
        BF(1, 0,ACT_CHECK,neci ,"New est. cause not supp.")
        BF(6,-90+111,ACT_CHECK,rxlev_access_min ,"-90 dBm")
    IE_END(cell_selection_parameter)
    IE_BEGIN(control_channel_description)

        BF(1,0,ACT_CHECK,ANONYMOUS ,"spare")
        BF(1,0,ACT_CHECK,att ,"MS shall not apply (not relevant) ")
        BF(3,0,ACT_CHECK,bs_ag_blks_res,"0 blocks reserved (not relevant) ")
        BF(3,1,ACT_CHECK,ccch_conf ,"Combined CCCH/SDCCH (not relevant)")
        BF(5,0,ACT_CHECK,ANONYMOUS ,"spare")
        BF(3,3,ACT_CHECK,bs_pa_mfrms ,"5 multiframes (not relevant) ")
        BF(8,0,ACT_CHECK,t3212 ,"Infinite")
    IE_END(control_channel_description)
    IE_BEGIN(l2_pseudo_length_12)
        BF(6,12,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 1,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(l2_pseudo_length_12)
    IE_BEGIN(l2_pseudo_length_18)
        BF(6,18,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 1,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(l2_pseudo_length_18)
    IE_BEGIN(l2_pseudo_length_21)
        BF(6,21,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 1,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(l2_pseudo_length_21)
    IE_BEGIN(l2_pseudo_length_22)
        BF(6,22,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
        BF(1, 1,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(l2_pseudo_length_22)
#define MCC 0x262 /* 262 decimal (not relevant) */
#define MNC 1 /* 01 decimal (not relevant) */
#define LAC 0x0001 /* 0001 hex (not relevant) */
#define LAC_B 0x0002 /* 0002 hex (not relevant) */
    IE_BEGIN(location_area_identification)
        BF( 4,6 ,ACT_CHECK,mcc_dig_2,"digit 2 of mobile country code")
        BF( 4,2 ,ACT_CHECK,mcc_dig_1,"digit 1 of mobile country code")
        BF( 4, 0xF,ACT_CHECK,ANONYMOUS ,"end of MCC")
        BF( 4,2 ,ACT_CHECK,mcc_dig_3,"digit 3 of mobile country code")
        BF( 4,1 ,ACT_CHECK,mnc_dig_2,"digit 2 of mobile network code")
        BF( 4,0 ,ACT_CHECK,mnc_dig_1,"digit 1 of mobile network code")
        BF(16, LAC,ACT_CHECK,lac ,"Location area code")
    IE_END(location_area_identification)
    IE_BEGIN(location_area_identification_B)
        BF( 4,6 ,ACT_CHECK,mcc_dig_2,"digit 2 of mobile country code")
        BF( 4,2 ,ACT_CHECK,mcc_dig_1,"digit 1 of mobile country code")
        BF( 4, 0xF,ACT_CHECK,ANONYMOUS ,"end of MCC")
        BF( 4,2 ,ACT_CHECK,mcc_dig_3,"digit 3 of mobile country code")
        BF( 4,1 ,ACT_CHECK,mnc_dig_2,"digit 2 of mobile network code")
        BF( 4,0 ,ACT_CHECK,mnc_dig_1,"digit 1 of mobile network code")
        BF(16, LAC_B,ACT_CHECK,lac ,"Location area code")

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IE_END(location_area_identification_B)
IE_BEGIN(mobile_identity_tmsi)
    BF(8, 5, ACT_CHECK,length, "five octets to come")
    BF(4, M4(1,1,1,1), ACT_CHECK,ANONYMOUS,"bits 5-8 of octet 3 ='1111'")
    BF(1, 0, ACT_CHECK,odd_even, "as applicable for TMSI")
    BF(3, M3(1,0,0), ACT_CHECK,type, "TMSI")
    BF(8, 0x12, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x34, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x56, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x78, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(mobile_identity_tmsi)

IE_BEGIN(tmsi)
    BF(8, 0x12, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x34, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x56, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x78, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(tmsi)

IE_BEGIN(tmsi_2)
    BF(8, 0x12, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x79, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x13, ACT_CHECK, ANONYMOUS, SILENT)
    BF(8, 0x78, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(tmsi_2)

IE_BEGIN(ncc_permitted)
    BF(8,0xFF,ACT_CHECK,ncc_permit,"e.g. all NCCs permitted")
IE_END(ncc_permitted)

IE_BEGIN(rach_control_parameter)
    BF(2,0,ACT_CHECK,max_retrans, "Any Value ")
    BF(4,0,ACT_CHECK,tx_integer, "Any Value ")
    BF(1,0,ACT_CHECK,cell_bar_access, "Not barred ")
    BF(1,1,ACT_CHECK,call_re_establishment, "Not Allowed")
    BF(5,0,ACT_CHECK,access_control_class_15_11, "None Barred")
    BF(1,0,ACT_CHECK,emergency_call, "Allowed ")
    BF(10,0,ACT_CHECK,access_control_class_09_00, "None Barred")
IE_END(rach_control_parameter)

IE_BEGIN(rach_control_parameter_reest)
    BF(2,0,ACT_CHECK,max_retrans, "Any Value ")
    BF(4,0,ACT_CHECK,tx_integer, "Any Value ")
    BF(1,0,ACT_CHECK,cell_bar_access, "Not barred ")
    BF(1,0,ACT_CHECK,call_re_establishment, "Allowed")
    BF(5,0,ACT_CHECK,access_control_class_15_11, "None Barred")
    BF(1,0,ACT_CHECK,emergency_call, "Allowed ")
    BF(10,0,ACT_CHECK,access_control_class_09_00, "None Barred")
IE_END(rach_control_parameter_reest)

IE_BEGIN(rr_management_protocol_discriminator)
    BF(4, 6,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(rr_management_protocol_discriminator)

IE_BEGIN(skip_indicator)
    BF(4, 0,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(skip_indicator)

IE_BEGIN(si_1_rest_octets)
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,"Spare Octets")
IE_END(si_1_rest_octets)

IE_BEGIN(si_3_rest_octets) /* optionally contains cell (re)select params */

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        BF(1, 0,ACT_CHECK,p1,"C2 parameters not present")
        BF(7,REST_OCTET & 0x7F,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(si_3_rest_octets)
    IE_BEGIN(si_4_rest_octets) /* optionally contains cell (re)select params */
        BF(1, 0,ACT_CHECK,p1,"C2 parameters not present")
        BF(7,REST_OCTET & 0x7F,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
        BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(si_4_rest_octets)
    IE_BEGIN(system_information_type_1_message_type)
        BF(8, 0x19,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_1_message_type)
    IE_BEGIN(system_information_type_2_message_type)
        BF(8, 0x1A,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_2_message_type)
    IE_BEGIN(system_information_type_3_message_type)
        BF(8, 0x1B,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_3_message_type)
    IE_BEGIN(system_information_type_4_message_type)
        BF(8, 0x1C,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_4_message_type)
    IE_BEGIN(system_information_type_5_message_type)
        BF(8, 0x1D,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_5_message_type)
    IE_BEGIN(system_information_type_6_message_type)
        BF(8, 0x1E,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(system_information_type_6_message_type)

    IE_BEGIN(paging_request_type_1_message_type)
        BF(8, 0x21,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(paging_request_type_1_message_type)

    IE_BEGIN(paging_request_type_2_message_type)
        BF(8, 0x22,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(paging_request_type_2_message_type)

    IE_BEGIN(paging_request_type_3_message_type)
        BF(8, 0x24,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(paging_request_type_3_message_type)

    IE_BEGIN(immediate_assignment_message_type)
        BF(8, 0x3F,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(immediate_assignment_message_type)
    IE_BEGIN(paging_response_message_type)
        BF(8, 0x27,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(paging_response_message_type)
    IE_BEGIN(ciphering_mode_command_message_type)
        BF(8, 0x35,ACT_CHECK,ANONYMOUS,SILENT)
    IE_END(ciphering_mode_command_message_type)
    IE_BEGIN(ciphering_mode_complete_message_type)

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    BF(8, 0x32,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(ciphering_mode_complete_message_type)

IE_BEGIN(handover_command_message_type)
    BF(8, 0x2B,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(handover_command_message_type)

IE_BEGIN(handover_complete_message_type)
    BF(8, 0x2C,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(handover_complete_message_type)

IE_BEGIN(handover_failure_message_type)
    BF(8, 0x28,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(handover_failure_message_type)

IE_BEGIN(assignment_failure_message_type)
    BF(8, 0x2F,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(assignment_failure_message_type)

IE_BEGIN(channel_mode_modify_message_type)
    BF(8, 0x10,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(channel_mode_modify_message_type)

IE_BEGIN(channel_mode_modify_acknowledge_message_type)
    BF(8, 0x17,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(channel_mode_modify_acknowledge_message_type)

IE_BEGIN(assignment_command_message_type)
    BF(8, 0x2E,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(assignment_command_message_type)

IE_BEGIN(assignment_complete_message_type)
    BF(8, 0x29,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(assignment_complete_message_type)

IE_BEGIN(cm_service_request_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x24,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cm_service_request_message_type)

IE_BEGIN(cm_service_abort_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x23,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cm_service_abort_message_type)

IE_BEGIN(cm_service_reject_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x22,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cm_service_reject_message_type)

IE_BEGIN(cm_service_accept_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x21,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cm_service_accept_message_type)

IE_BEGIN(call_proceeding_message_type)
```

```

    BF(1,      0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,      0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x02,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(call_proceeding_message_type)

IE_BEGIN(modify_message_type)
    BF(1,      0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,      0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x17,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(modify_message_type)

IE_BEGIN(modify_reject_message_type)
    BF(1,      0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,      0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x13,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(modify_reject_message_type)
/*-----*\
| Messages
\*-----*/
MSG3_BEGIN(cp_data_sms_deliver_2)
    IE(transaction_identifier_source)
    IE(sms_protocol_discriminator)
    IE(cp_data_message_type)
    IE(cp_user_data_sms_deliver_2)
MSG3_END(cp_data_sms_deliver_2)

MSG3_BEGIN(cp_data_sms_deliver_0)
    IE(transaction_identifier_source)
    IE(sms_protocol_discriminator)
    IE(cp_data_message_type)
    IE(cp_user_data_sms_deliver_2)
MSG3_END(cp_data_sms_deliver_0)

MSG3_BEGIN(cp_ack_to_bs)
    IE(transaction_identifier_dest)
    IE(sms_protocol_discriminator)
    IE(cp_ack_message_type)
MSG3_END(cp_ack_to_bs)

MSG3_BEGIN(cp_data_rp_ack_to_bs)
    IE(transaction_identifier_dest)
    IE(sms_protocol_discriminator)
    IE(cp_data_message_type)
    IE(cp_user_data_rp_ack_to_bs)
MSG3_END(cp_data_rp_ack_to_bs)

MSG3_BEGIN(cp_ack_to_ms)
    IE(transaction_identifier_source)
    IE(sms_protocol_discriminator)
    IE(cp_ack_message_type)
MSG3_END(cp_ack_to_ms)

MSG3_BEGIN(system_information_type_1)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_1_message_type)
    IE(cell_channel_description)
    IE(rach_control_parameter)
    IE(si_1_rest_octets)

```

```
MSG3_END(system_information_type_1)
MSG3_BEGIN(system_information_type_2)
    IE(l2_pseudo_length_22)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_2_message_type)
    IE(bcch_frequency_list)
    IE(ncc_permitted)
    IE(rach_control_parameter)
MSG3_END(system_information_type_2)
MSG3_BEGIN(system_information_type_3)
    IE(l2_pseudo_length_18)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_3_message_type)
    IE(cell_identity)
    IE(location_area_identification)
    IE(control_channel_description)
    IE(cell_options)
    IE(cell_selection_parameter)
    IE(rach_control_parameter)
    IE(si_3_rest_octets)
MSG3_END(system_information_type_3)
MSG3_BEGIN(system_information_type_4)
    IE(l2_pseudo_length_12)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_4_message_type)
    IE(location_area_identification)
    IE(cell_selection_parameter)
    IE(rach_control_parameter)
    IE(si_4_rest_octets)
MSG3_END(system_information_type_4)
MSG3_BEGIN(system_information_type_5)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_5_message_type)
    IE(bcch_frequency_list)
MSG3_END(system_information_type_5)
MSG3_BEGIN(system_information_type_6)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_6_message_type)
    IE(cell_identity)
    IE(location_area_identification)
    IE(cell_options)
    IE(ncc_permitted)
MSG3_END(system_information_type_6)

MSG3_BEGIN(system_information_type_1_1900)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_1_message_type)
    IE(cell_channel_description)
    IE(rach_control_parameter)
    IE(si_1_rest_octets)
MSG3_END(system_information_type_1_1900)
MSG3_BEGIN(system_information_type_2_1900)
    IE(l2_pseudo_length_22)
```

```

    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_2_message_type)
    IE(bcch_frequency_list)
    IE(ncc_permitted)
    IE(rach_control_parameter)
MSG3_END(system_information_type_2_1900)
MSG3_BEGIN(system_information_type_3_1900)
    IE(l2_pseudo_length_18)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_3_message_type)
    IE(cell_identity)
    IE(location_area_identification)
    IE(control_channel_description)
    IE(cell_options)
    IE(cell_selection_parameter)
    IE(rach_control_parameter)
    IE(si_3_rest_octets)
MSG3_END(system_information_type_3_1900)
MSG3_BEGIN(system_information_type_4_1900)
    IE(l2_pseudo_length_12)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_4_message_type)
    IE(location_area_identification)
    IE(cell_selection_parameter)
    IE(rach_control_parameter)
    IE(si_4_rest_octets)
MSG3_END(system_information_type_4_1900)
MSG3_BEGIN(system_information_type_5_1900)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_5_message_type)
    IE(bcch_frequency_list)
MSG3_END(system_information_type_5_1900)
MSG3_BEGIN(system_information_type_6_1900)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_6_message_type)
    IE(cell_identity)
    IE(location_area_identification)
    IE(cell_options)
    IE(ncc_permitted)
MSG3_END(system_information_type_6_1900)
/*-----*\
| GSM 11.10
| 10 Generic call set up procedure
| 10.1 Generic call setup-up procedure for mobile terminating speech calls
| 10.1.4 Specific message contents
\*-----*/
/*-----*\
| Information Elements
\*-----*/
#define ARFCN_BCCH      122
#define ARFCN_BCCH_B    48
#define ARFCN_BCCH_1900 540
#define NCC              0x5
#define BCC              0x6
#define BSIC             ((NCC<<3) | (BCC))

```



```
#define RFN 0
IE_BEGIN(handover_reference)
    BF(8,0,ACT_CHECK,reference_value,"used for handover")
IE_END(handover_reference)
IE_BEGIN(authentication_parameter_rand)
    BF(32,0x80000000,ACT_CHECK,rand_127_096,SILENT)
    BF(32,0x00000012,ACT_CHECK,rand_095_064,SILENT)
    BF(32,0x34000000,ACT_CHECK,rand_063_032,SILENT)
    BF(32,0x0000000F,ACT_CHECK,rand_031_000,SILENT)
IE_END(authentication_parameter_rand)
IE_BEGIN(authentication_parameter_sres)
    BF(32,0x0000000F,ACT_NOP,sres_031_000,SILENT)
IE_END(authentication_parameter_sres)
IE_BEGIN(bearer_capability)
    BF(8,1,ACT_CHECK,length,SILENT)
    BF(1,1,ACT_CHECK,ext3,SILENT)
    BF(2,1,ACT_CHECK,radio_channel_requirement,SILENT)
    BF(1,0,ACT_CHECK,coding_standard,SILENT)
    BF(1,0,ACT_CHECK,transfer_mode,SILENT)
    BF(3,0,ACT_CHECK,info_transfer_capability,SILENT)
IE_END(bearer_capability)

IE_BEGIN(bearer_capability_efr)
    BF(8,3,ACT_CHECK,length,SILENT)
    BF(1,0,ACT_CHECK,ext3,SILENT)
    BF(2,1,ACT_CHECK,radio_channel_requirement,SILENT)
    BF(1,0,ACT_CHECK,coding_standard,SILENT)
    BF(1,0,ACT_CHECK,transfer_mode,SILENT)
    BF(3,0,ACT_CHECK,info_transfer_capability,SILENT)
    BF(8,0x02,ACT_CHECK/octet_3a_1,SILENT)
    BF(8,0x80,ACT_CHECK/octet_3a_2,SILENT)
IE_END(bearer_capability_efr)

IE_BEGIN(bearer_capability_3_voc)
    BF(8,4,ACT_CHECK,length,SILENT)
    BF(1,0,ACT_CHECK,ext3,SILENT)
    BF(2,3,ACT_CHECK,radio_channel_requirement,SILENT)
    BF(1,0,ACT_CHECK,coding_standard,SILENT)
    BF(1,0,ACT_CHECK,transfer_mode,SILENT)
    BF(3,0,ACT_CHECK,info_transfer_capability,SILENT)
    BF(8,0x02,ACT_CHECK/octet_3a_1,SILENT)
    BF(8,0x00,ACT_CHECK/octet_3a_2,SILENT)
    BF(8,0x81,ACT_CHECK/octet_3a_3,SILENT)
IE_END(bearer_capability_3_voc)

IE_BEGIN(bearer_capability_data)
    BF(8,7,ACT_CHECK,length,SILENT)
    BF(1,1,ACT_CHECK,ext3,SILENT)
    BF(2,1,ACT_CHECK,radio_channel_requirement,SILENT)
    BF(1,0,ACT_CHECK,coding_standard,SILENT)
    BF(1,0,ACT_CHECK,transfer_mode,SILENT)
    BF(3,2,ACT_CHECK,info_transfer_capability,SILENT)
    BF(1,1,ACT_CHECK,ext4,SILENT)
    BF(1,1,ACT_CHECK,compression,SILENT)
    BF(2,0,ACT_CHECK,structure,SILENT)
    BF(1,1,ACT_CHECK,duplex_mode,SILENT)
    BF(1,0,ACT_CHECK,configuration,SILENT)
    BF(1,0,ACT_CHECK,NIRR,SILENT)
    BF(1,0,ACT_CHECK,establishment,SILENT)
    BF(1,1,ACT_CHECK,ext5,SILENT)
```

```

BF(2,1,ACT_CHECK,    access_identifier,    SILENT)
BF(2,0,ACT_CHECK,    rate_adaption,        SILENT)
BF(3,1,ACT_CHECK,    access_protocol,      SILENT)
BF(1,0,ACT_CHECK,    ext6,                SILENT)
BF(2,1,ACT_CHECK,    layer_1,              SILENT)
BF(4,0,ACT_CHECK,    default_layer_1,      SILENT)
BF(1,1,ACT_CHECK,    sync_async,           SILENT)
BF(1,0,ACT_CHECK,    ext6a,                SILENT)
BF(1,0,ACT_CHECK,    stop_bits,            SILENT)
BF(1,0,ACT_CHECK,    negotiation,          SILENT)
BF(1,1,ACT_CHECK,    data_bits,            SILENT)
BF(4,3,ACT_CHECK,    user_rate,            SILENT)
BF(1,0,ACT_CHECK,    ext6b,                SILENT)
BF(2,3,ACT_CHECK,    intermediate_rate,    SILENT)
BF(1,0,ACT_CHECK,    NIC_TX,               SILENT)
BF(1,0,ACT_CHECK,    NIC_RX,               SILENT)
BF(3,3,ACT_CHECK,    parity,               SILENT)
BF(1,1,ACT_CHECK,    ext6c,                SILENT)
BF(2,1,ACT_CHECK,    connection_element,   SILENT)
BF(5,3,ACT_CHECK,    modem_type,           SILENT)
IE_END(bearer_capability_data)

IE_BEGIN(bearer_capability_rlp)
BF(8,7,ACT_CHECK,    length,                SILENT)
BF(1,1,ACT_CHECK,    ext3,                  SILENT)
BF(2,3,ACT_CHECK,    radio_channel_requirement, SILENT)
BF(1,0,ACT_CHECK,    coding_standard,        SILENT)
BF(1,0,ACT_CHECK,    transfer_mode,          SILENT)
BF(3,1,ACT_CHECK,    info_transfer_capability, SILENT)
BF(1,1,ACT_CHECK,    ext4,                  SILENT)
BF(1,0,ACT_CHECK,    compression,            SILENT)
BF(2,0,ACT_CHECK,    structure,              SILENT)
BF(1,1,ACT_CHECK,    duplex_mode,            SILENT)
BF(1,0,ACT_CHECK,    configuration,          SILENT)
BF(1,0,ACT_CHECK,    NIRR,                  SILENT)
BF(1,0,ACT_CHECK,    establishment,          SILENT)
BF(1,1,ACT_CHECK,    ext5,                  SILENT)
BF(2,0,ACT_CHECK,    access_identifier,      SILENT)
BF(2,1,ACT_CHECK,    rate_adaption,          SILENT)
BF(3,1,ACT_CHECK,    access_protocol,        SILENT)
BF(1,0,ACT_CHECK,    ext6,                  SILENT)
BF(2,1,ACT_CHECK,    layer_1,                SILENT)
BF(4,0,ACT_CHECK,    default_layer_1,        SILENT)
BF(1,1,ACT_CHECK,    sync_async,             SILENT)
BF(1,0,ACT_CHECK,    ext6a,                  SILENT)
BF(1,0,ACT_CHECK,    stop_bits,              SILENT)
BF(1,0,ACT_CHECK,    negotiation,            SILENT)
BF(1,1,ACT_CHECK,    data_bits,              SILENT)
BF(4,5,ACT_CHECK,    user_rate,              SILENT)
BF(1,0,ACT_CHECK,    ext6b,                  SILENT)
BF(2,3,ACT_CHECK,    intermediate_rate,      SILENT)
BF(1,0,ACT_CHECK,    NIC_TX,                 SILENT)
BF(1,0,ACT_CHECK,    NIC_RX,                 SILENT)
BF(3,3,ACT_CHECK,    parity,                 SILENT)
BF(1,1,ACT_CHECK,    ext6c,                  SILENT)
BF(2,1,ACT_CHECK,    connection_element,     SILENT)
BF(5,0,ACT_CHECK,    modem_type,             SILENT)
IE_END(bearer_capability_rlp)

IE_BEGIN(call_control_protocol_discriminator)

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    BF(4, 3,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(call_control_protocol_discriminator)

IE_BEGIN(supplementary_services_protocol_discriminator)
    BF(4, M4(1,0,1,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(supplementary_services_protocol_discriminator)

IE_BEGIN(called_party_bcd_number)
    BF( 8,7,ACT_CHECK,length,"length of IE")
    BF( 1,1,ACT_CHECK,ext,"Extension Bit")
    BF( 3,0,ACT_CHECK,type_of_number,"Unknown")
    BF( 4,1,ACT_CHECK,numbering_plan,"ISDN/telephony")
    BF( 4,3,ACT_CHECK,digit_2,"Digit 2")
    BF( 4,0,ACT_CHECK,digit_1,"Digit 1")
    BF( 4,3,ACT_CHECK,digit_4,"Digit 4")
    BF( 4,0,ACT_CHECK,digit_3,"Digit 3")
    BF( 4,0,ACT_CHECK,digit_6,"Digit 6")
    BF( 4,9,ACT_CHECK,digit_5,"Digit 5")
    BF( 4,4,ACT_CHECK,digit_8,"Digit 8")
    BF( 4,9,ACT_CHECK,digit_7,"Digit 7")
    BF( 4,1,ACT_CHECK,digit_10,"Digit 10")
    BF( 4,1,ACT_CHECK,digit_9,"Digit 9")
    BF( 4,0xF,ACT_CHECK,digit_12,"Digit 12")
    BF( 4,7,ACT_CHECK,digit_11,"Digit 11")
IE_END(called_party_bcd_number)

IE_BEGIN(channels_needed_for mobiles_1_and_2)
    BF(2,0,ACT_CHECK,second_channel,"spare, any channel")
    BF(2,0,ACT_CHECK, first_channel,"spare, any channel")
IE_END(channels_needed_for mobiles_1_and_2)

/* cc_capabilities is identical with call_control_capabilities */
IE_BEGIN(cc_capabilities)
    BF(8,1,ACT_CHECK, length, SILENT)
    BF(6,0,ACT_CHECK, spare, SILENT)
    BF(1,1,ACT_CHECK, pcp, SILENT)
    BF(1,1,ACT_CHECK, dtmf_support, SILENT)
IE_END(cc_capabilities)
IE_BEGIN(channel_description)
    BF( 5,M5(0,0,1,0,1),ACT_CHECK, channel_type,"SDCCH/SACCH 4(1) ")
    BF( 3, 0,ACT_CHECK, time_slot_number,"zero")
    BF( 3, BCC,ACT_CHECK, training_sequence_code,"same as BCCH")
    BF( 1, 0,ACT_CHECK, hopping,"No")
    BF( 2, 0,ACT_CHECK, spare,SILENT)
    BF(10, ARFCN_BCCH,ACT_CHECK, arfcn,"ARFCN of the BCCH")
IE_END(channel_description)

IE_BEGIN(channel_description_tch)
    BF( 5,M5(0,0,0,0,1),ACT_CHECK, channel_type,"TCH Full Rate")
    BF( 3, 0,ACT_CHECK, time_slot_number,"zero ")
    BF( 3, BCC,ACT_CHECK, tsc,"same as BCCH ")
    BF( 1, 0,ACT_CHECK, hopping,"No ")
    BF( 2, 0,ACT_CHECK, spare,SILENT )
    BF(10, ARFCN_BCCH,ACT_CHECK, arfcn,"ARFCN of the BCCH ")
IE_END(channel_description_tch)

IE_BEGIN(channel_description_1900)
    BF( 5,M5(0,0,1,0,1),ACT_CHECK, channel_type,"SDCCH/SACCH 4(1) ")
    BF( 3, 0,ACT_CHECK, time_slot_number,"zero")
    BF( 3, BCC,ACT_CHECK, training_sequence_code,"same as BCCH")

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        BF( 1,                0,ACT_CHECK, hopping,"No")
        BF( 2,                0,ACT_CHECK, spare,SILENT)
        BF(10,ARFCN_BCCH_1900,ACT_CHECK, arfcn,"ARFCN of the BCCH")
    IE_END(channel_description_1900)

    IE_BEGIN(channel_mode_speech)
        BF( 8,                1,ACT_CHECK,      mode,"Speech full rate")
    IE_END(channel_mode_speech)

    IE_BEGIN(cm_service_type_ss)
        BF(4,M4(1,0,0,0),ACT_CHECK,service_type,"supplementary services")
    IE_END(cm_service_type_ss)

    IE_BEGIN(cm_service_type_sms)
        BF(4,M4(0,1,0,0),ACT_CHECK,service_type,"supplementary services")
    IE_END(cm_service_type_sms)

    IE_BEGIN(cm_service_type_moc)
        BF(4,M4(0,0,0,1),ACT_CHECK,service_type,"mobile originated call")
    IE_END(cm_service_type_moc)

    IE_BEGIN(ciphering_key_sequence_number)
        BF(1,                0,ACT_CHECK,      spare,SILENT)
        BF(3,M3(0,1,1),ACT_CHECK,key_sequence,"from SIM card (3)")
    IE_END(ciphering_key_sequence_number)
    IE_BEGIN(ciphering_key_sequence_number_2)
        BF(1,                0,ACT_CHECK,      spare,SILENT)
        BF(3,M3(0,1,0),ACT_CHECK,key_sequence,"sent BS->MS")
    IE_END(ciphering_key_sequence_number_2)
    IE_BEGIN(ciphering_mode_setting)
        BF(3,M3(0,0,0),ACT_CHECK,algorithm_identifier,"A5/1")
        BF(1,                1,ACT_CHECK,      start_ciphering,"Start ciphering")
    IE_END(ciphering_mode_setting)
    IE_BEGIN(cipher_response)
        BF(3,0,ACT_CHECK,      spare,SILENT)
        BF(1,0,ACT_CHECK,cipher_response,"IMEISV shall not be included")
    IE_END(cipher_response)
    IE_BEGIN(description_of_the_first_channel_after_time)
        BF( 5,M5(0,0,0,0,1),ACT_CHECK,      channel_type,"TCH ")
        BF( 3,                3,ACT_CHECK,      time_slot_number,"three")
        BF( 3,                BCC,ACT_CHECK,training_sequence_code,"same as BCCH")
        BF( 1,                0,ACT_CHECK,      hopping,"No")
        BF( 2,                0,ACT_CHECK,      spare,SILENT)
        BF(10, ARFCN_BCCH,ACT_CHECK,      arfcn,"ARFCN of the BCCH")
    IE_END(description_of_the_first_channel_after_time)

    IE_BEGIN(description_of_the_first_channel_after_time_1900)
        BF( 5,M5(0,0,0,0,1),ACT_CHECK,      channel_type,"TCH ")
        BF( 3,                3,ACT_CHECK,      time_slot_number,"three")
        BF( 3,                BCC,ACT_CHECK,training_sequence_code,"same as BCCH")
        BF( 1,                0,ACT_CHECK,      hopping,"No")
        BF( 2,                0,ACT_CHECK,      spare,SILENT)
        BF(10, ARFCN_BCCH_1900,ACT_CHECK,      arfcn,"ARFCN of the BCCH")
    IE_END(description_of_the_first_channel_after_time_1900)

    IE_BEGIN(channel_description_ho)
        BF( 5,M5(0,0,0,0,1),ACT_CHECK,      channel_type,"TCH ")
        BF( 3,                2,ACT_CHECK,      time_slot_number,"two")
        BF( 3,                BCC,ACT_CHECK,training_sequence_code,"same as BCCH")
        BF( 1,                0,ACT_CHECK,      hopping,"No")

```

```

    BF( 2,          0,ACT_CHECK,    spare,SILENT)
    BF(10,    ARFCN_BCCH,ACT_CHECK,    arfcn,"ARFCN of the BCCH")
IE_END(channel_description_ho)

IE_BEGIN(cell_description)
    BF( 2,ARFCN_BCCH>>8      ,ACT_CHECK,arfcn_hi,"BCCH ARFCN (high part)")
    BF( 3,          1,ACT_CHECK,ncc,    "network colour code")
    BF( 3,          5,ACT_CHECK,bcc,    "base station colour code")
    BF( 8,ARFCN_BCCH      ,ACT_CHECK,arfcn_lo,"BCCH ARFCN (low part)")
IE_END(cell_description)

IE_BEGIN(sync_ind_synch)
    BF( 1,    0,ACT_CHECK,nci,"ignore out of range timing advance")
    BF( 1,    0,ACT_CHECK,rot,"shall not be included")
    BF( 2,    1,ACT_CHECK,si ,"synchronized handover")
IE_END(sync_ind_synch)

IE_BEGIN(ia_rest_octets)    /* maximum length (11), no hop, no start time */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 0 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 1 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 2 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 3 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 4 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 5 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 6 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 7 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 8 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 9 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 10 */
IE_END(ia_rest_octets)

IE_BEGIN(iei_D)
    BF(4,0x0D,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_D)

IE_BEGIN(iei_08)
    BF(8,0x08,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_08)

IE_BEGIN(iei_1C)
    BF(8,0x1C,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_1C)

IE_BEGIN(iei_7B)
    BF(8,0x7B,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_7B)

IE_BEGIN(iei_7E)
    BF(8,0x7E,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_7E)

IE_BEGIN(iei_7F)
    BF(8,0x7F,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_7F)

IE_BEGIN(iei_1E)
    BF(8,0x1E,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(iei_1E)

IE_BEGIN(iei_63)
    BF(8,0x63,ACT_CHECK,ANONYMOUS,SILENT)

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IE_END(iei_63)
IE_BEGIN(iei_5E)
    BF(8, 0x5E, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_5E)
IE_BEGIN(iei_15)
    BF(8, 0x15, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_15)
IE_BEGIN(iei_04)
    BF(8, 0x04, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_04)
IE_BEGIN(iei_34)
    BF(8, 0x34, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_34)
IE_BEGIN(iei_2C)
    BF(8, 0x2C, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_2C)
IE_BEGIN(iei_13)
    BF(8, 0x13, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(iei_13)

IE_BEGIN(keypad_facility_0)
    BF(8, 0x30, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_0)

IE_BEGIN(keypad_facility_1)
    BF(8, 0x31, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_1)

IE_BEGIN(keypad_facility_2)
    BF(8, 0x32, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_2)

IE_BEGIN(keypad_facility_3)
    BF(8, 0x33, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_3)

IE_BEGIN(keypad_facility_4)
    BF(8, 0x34, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_4)

IE_BEGIN(keypad_facility_5)
    BF(8, 0x35, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_5)

IE_BEGIN(keypad_facility_6)
    BF(8, 0x36, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_6)

IE_BEGIN(keypad_facility_7)
    BF(8, 0x37, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_7)

IE_BEGIN(keypad_facility_8)
    BF(8, 0x38, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_8)

IE_BEGIN(keypad_facility_9)
    BF(8, 0x39, ACT_CHECK, ANONYMOUS, SILENT)
IE_END(keypad_facility_9)
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IE_BEGIN(keypad_facility_A)
    BF(8, 0x41,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_A)

IE_BEGIN(keypad_facility_B)
    BF(8, 0x42,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_B)

IE_BEGIN(keypad_facility_C)
    BF(8, 0x43,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_C)

IE_BEGIN(keypad_facility_D)
    BF(8, 0x44,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_D)

IE_BEGIN(keypad_facility_star)
    BF(8, 0x2A,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_star)

IE_BEGIN(keypad_facility_hash)
    BF(8, 0x23,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(keypad_facility_hash)

IE_BEGIN(l2_pseudo_length_11) /* pag req type 1 with TMSI (one mobile)*/
    BF(8, 0,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(l2_pseudo_length_11)
IE_BEGIN(mobile_allocation)
    BF(8,0,ACT_CHECK,length,"length 0 due to hopping disabled")
IE_END(mobile_allocation)
IE_BEGIN(mobile_identity) /* has 8 octets */
    BF(8, 7,ACT_CHECK, length,"seven octets to come")
    BF(4, 2,ACT_CHECK, digit_1,SILENT)
    BF(1, 1,ACT_CHECK,odd_even,SILENT)
    BF(3, M3(0,0,1),ACT_CHECK, type,"IMSI")
    BF(4, 2,ACT_CHECK, digit_3,SILENT)
    BF(4, 6,ACT_CHECK, digit_2,SILENT)
    BF(4, 1,ACT_CHECK, digit_4,SILENT)
    BF(4, 0,ACT_CHECK, digit_3,SILENT)
    BF(4, 7,ACT_CHECK, digit_6,SILENT)
    BF(4, 4,ACT_CHECK, digit_5,SILENT)
    BF(4, 1,ACT_CHECK, digit_8,SILENT)
    BF(4, 1,ACT_CHECK, digit_7,SILENT)
    BF(4, 9,ACT_CHECK, digit_10,SILENT)
    BF(4, 4,ACT_CHECK, digit_9,SILENT)
    BF(4, 2,ACT_CHECK, digit_12,SILENT)
    BF(4, 1,ACT_CHECK, digit_11,SILENT)
IE_END(mobile_identity)
IE_BEGIN(mobility_management_protocol_discriminator)
    BF(4, 5,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(mobility_management_protocol_discriminator)

IE_BEGIN(identity_type)
    BF(4,1,ACT_CHECK, type_of_identity,"IMSI")
IE_END(identity_type)

IE_BEGIN(mode_of_the_first_channel)
    BF(8,1,ACT_CHECK,mode,"Speech full rate")
IE_END(mode_of_the_first_channel)
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IE_BEGIN(mode_of_the_first_channelEFR)
    BF(8,0x21,ACT_CHECK,mode,"Enhanced full rate")
IE_END(mode_of_the_first_channelEFR)

IE_BEGIN(mode_of_the_first_channel_data_12k)
    BF(8,3,ACT_CHECK,mode,"data 12.0 k")
IE_END(mode_of_the_first_channel_data_12k)

IE_BEGIN(ms_classmark)
    BF(8,      3,ACT_CHECK, length,SILENT)
    BF(1,      0,ACT_CHECK, spare,SILENT)
    BF(2,  M2(0,1),ACT_CHECK, revision_level,"phase 2 MS")
    BF(1,      1,ACT_CHECK, es_ind,"with 'Contr. Early Classmark Send.'")
    BF(1,      0,ACT_CHECK, a5_1,"encryption algorithm A5/1 available")
    BF(3,M3(0,0,1),ACT_CHECK, rf_power_capability,"class 2")
    BF(1,      0,ACT_CHECK, spare2,SILENT)
    BF(1,      1,ACT_CHECK, ps_capability,SILENT)
    BF(2,  M2(1,1),ACT_CHECK, ss_screening_indicator,SILENT)
    BF(1,      1,ACT_CHECK, sm_capability,"point to point SMS")
    BF(1,      0,ACT_CHECK, vbs,"no VBS cap. or no notific. wanted")
    BF(1,      0,ACT_CHECK, vgcs,"no VGCS cap. or no notific. wanted")
    BF(1,      0,ACT_CHECK, frequency_capability,"no extension band G1")
    BF(1,      0,ACT_CHECK, classmark_3,"add. MS cap. information")
    BF(4,      0,ACT_CHECK, spare3,SILENT)
    BF(1,      1,ACT_CHECK, cmstp, "CM Service Prompt")
    BF(1,      0,ACT_CHECK, a5_3,"A5/3 not available")
    BF(1,      0,ACT_CHECK, a5_2,"A5/2 not available")
IE_END(ms_classmark)

IE_BEGIN(ms_classmark_1900)
    BF(8,      3,ACT_CHECK, length,SILENT)
    BF(1,      0,ACT_CHECK, spare,SILENT)
    BF(2,  M2(0,1),ACT_CHECK, revision_level,"phase 2 MS")
    BF(1,      1,ACT_CHECK, es_ind,"with 'Contr. Early Classmark Send.'")
    BF(1,      0,ACT_CHECK, a5_1,"encryption algorithm A5/1 available")
    BF(3,M3(0,0,0),ACT_CHECK, rf_power_capability,"class 2")
    BF(1,      0,ACT_CHECK, spare2,SILENT)
    BF(1,      0,ACT_CHECK, ps_capability,SILENT)
    BF(2,  M2(1,1),ACT_CHECK, ss_screening_indicator,SILENT)
    BF(1,      1,ACT_CHECK, sm_capability,"point to point SMS")
    BF(1,      0,ACT_CHECK, vbs,"no VBS cap. or no notific. wanted")
    BF(1,      0,ACT_CHECK, vgcs,"no VGCS cap. or no notific. wanted")
    BF(1,      0,ACT_CHECK, frequency_capability,"no extension band G1")
    BF(1,      0,ACT_CHECK, classmark_3,"no add. MS cap. information")
    BF(4,      0,ACT_CHECK, spare3,SILENT)
    BF(1,      1,ACT_CHECK, cmstp, "CM Service Prompt")
    BF(1,      0,ACT_CHECK, a5_3,"A5/3 not available")
    BF(1,      0,ACT_CHECK, a5_2,"A5/2 not available")
IE_END(ms_classmark_1900)

IE_BEGIN(ms_classmark_dual_ext)
    BF(8,      3,ACT_CHECK, length,SILENT)
    BF(1,      0,ACT_CHECK, spare,SILENT)
    BF(2,  M2(0,1),ACT_CHECK, revision_level,"phase 2 MS")
    BF(1,      1,ACT_CHECK, es_ind,"with 'Contr. Early Classmark Send.'")
    BF(1,      0,ACT_CHECK, a5_1,"encryption algorithm A5/1 available")
    BF(3,M3(0,0,1),ACT_CHECK, rf_power_capability,"class 2")
    BF(1,      0,ACT_CHECK, spare2,SILENT)
    BF(1,      0,ACT_CHECK, ps_capability,SILENT)
    BF(2,  M2(1,1),ACT_CHECK, ss_screening_indicator,SILENT)
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    BF(1,          1,ACT_CHECK, sm_capability,"point to point SMS")
    BF(1,          0,ACT_CHECK, vbs,"no VBS cap. or no notific. wanted")
    BF(1,          0,ACT_CHECK, vgcs,"no VGCS cap. or no notific. wanted")
    BF(1,          1,ACT_CHECK, frequency_capability,"extention band G1")
    BF(1,          1,ACT_CHECK, classmark_3,"add. MS cap. information")
    BF(4,          0,ACT_CHECK, spare3,SILENT)
    BF(1,          1,ACT_CHECK, cmstp, "CM Service Prompt")
    BF(1,          0,ACT_CHECK, a5_3,"A5/3 not available")
    BF(1,          0,ACT_CHECK, a5_2,"A5/2 not available")
IE_END(ms_classmark_dual_ext)

IE_BEGIN(p1_rest_octets)
/* pag. req. type1 : 22 - 11 (L2 pseud. len) = 11 bytes */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 0 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 1 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 2 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 3 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 4 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 5 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 6 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 7 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 8 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 9 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 10 */
IE_END(p1_rest_octets)

IE_BEGIN(p2_rest_octets)
/* pag. req. type1 : 22 - 11 (L2 pseud. len) = 11 bytes */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 0 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 1 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 2 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 3 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 4 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 5 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 6 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 7 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 8 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 9 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 10 */
IE_END(p2_rest_octets)

IE_BEGIN(p3_rest_octets)
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 0 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 1 */
    BF(8,REST_OCTET,ACT_CHECK,ANONYMOUS,SILENT) /* 2 */
IE_END(p3_rest_octets)

IE_BEGIN(page_mode)
    BF(2,0,ACT_CHECK,spare,"two spare bits ")
    BF(2,0,ACT_CHECK,pm,"Normal Paging")
IE_END(page_mode)

IE_BEGIN(power_command)
    BF(8,10,ACT_CHECK,power,SILENT)
IE_END(power_command)

IE_BEGIN(rach_111)
    BF(3,M3(1,1,1),ACT_CHECK,establishment_cause,"SS")
    BF(5,M5(1,1,1,1,1),ACT_NOP, random_reference,"ignore Random Ref.")
IE_END(rach_111)
IE_BEGIN(rach)

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BF(3,M3(1,0,0),ACT_CHECK,establishment_cause,"paging ind. any chan'")
BF(5,M5(1,1,1,1,1),ACT_NOP,random_reference,"ignore Random Ref.")
IE_END(rach)
IE_BEGIN(rach_moc)
BF(3,M3(1,1,1),ACT_CHECK,establishment_cause,"MOC & TCH/F")
BF(5,M5(1,1,1,1,1),ACT_NOP,random_reference,"ignore Random Ref.")
IE_END(rach_moc)
IE_BEGIN(rach_reest_neci_0)
BF(3,M3(1,1,0),ACT_CHECK,establishment_cause,"Reest, NECI=0, TCH/F")
BF(5,M5(1,1,1,1,1),ACT_NOP,random_reference,"ignore Random Ref.")
IE_END(rach_reest_neci_0)
IE_BEGIN(request_reference)
BF(3,M3(1,0,0),ACT_NOP,random_access_info,"As in CHAN REQ")
BF(5,M5(1,1,1,1,1),ACT_NOP,random_reference,SILENT)
BF(5,0,ACT_NOP,t1,SILENT)
BF(6,0,ACT_NOP,t3,SILENT)
BF(5,0,ACT_NOP,t2,SILENT)
IE_END(request_reference)

IE_BEGIN(rr_cause)
BF(8,0,ACT_CHECK,rr_cause,"normal event")
IE_END(rr_cause)

IE_BEGIN(rr_cause_1)
BF(8,1,ACT_CHECK,rr_cause,"abnormal event, unspecified")
IE_END(rr_cause_1)

IE_BEGIN(rr_cause_6F)
BF(8,0x6F,ACT_CHECK,rr_cause,"protocol error unspecified")
IE_END(rr_cause_6F)

IE_BEGIN(reject_cause)
BF(8,0x20,ACT_CHECK,reject_cause,"service not available")
IE_END(reject_cause)

IE_BEGIN(progress_indicator_32)
BF(8,2,ACT_CHECK,length,"two octets")
BF(1,1,ACT_CHECK,ext_1,SILENT)
BF(2,3,ACT_CHECK,coding_standard,"GSM Standard")
BF(1,0,ACT_SHOW,spare,SILENT)
BF(4,0,ACT_CHECK,location,"User")
BF(1,1,ACT_CHECK,ext_2,SILENT)
BF(7,32,ACT_CHECK,progress_description,"call is end-to-end PLMN/ISDN")
IE_END(progress_indicator_32)

IE_BEGIN(progress_indicator_8)
BF(8,2,ACT_CHECK,length,"two octets")
BF(1,1,ACT_CHECK,ext_1,SILENT)
BF(2,3,ACT_CHECK,coding_standard,"GSM Standard")
BF(1,0,ACT_SHOW,spare,SILENT)
BF(4,0,ACT_CHECK,location,"User")
BF(1,1,ACT_CHECK,ext_2,SILENT)
BF(7,8,ACT_CHECK,progress_description,"in band tones available")
IE_END(progress_indicator_8)

IE_BEGIN(allowed_actions_ccbs)
BF(8,1,ACT_CHECK,length,"allowed_actions_length")
BF(1,1,ACT_CHECK,ccbs_act,"CCBS activation offered")
BF(7,0,ACT_CHECK,spare1,"spare")
IE_END(allowed_actions_ccbs)
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IE_BEGIN(ss_version)
    BF(8,      1,ACT_CHECK,length,SILENT)
    BF(8,      0,ACT_SHOW, version,SILENT)
IE_END(ss_version)

IE_BEGIN(cause_03)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
    BF(2,      3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(1,      0,ACT_SHOW, spare,SILENT)
    BF(4,      0,ACT_CHECK, location,"User")
    BF(1,      1,ACT_CHECK, ext_2,SILENT)
    BF(7,      3,ACT_CHECK, cause,"no route to destination")
IE_END(cause_03)

IE_BEGIN(cause_17)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
    BF(2,      3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(1,      0,ACT_SHOW, spare,SILENT)
    BF(4,      0,ACT_CHECK, location,"User")
    BF(1,      1,ACT_CHECK, ext_2,SILENT)
    BF(7,      17,ACT_CHECK, cause,"user busy")
IE_END(cause_17)

IE_BEGIN(cause_31)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
    BF(2,      3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(1,      0,ACT_SHOW, spare,SILENT)
    BF(4,      0,ACT_CHECK, location,"User")
    BF(1,      1,ACT_CHECK, ext_2,SILENT)
    BF(7,      31,ACT_CHECK, cause,"normal, unspecified")
IE_END(cause_31)

IE_BEGIN(cause_57)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
    BF(2,      3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(1,      0,ACT_SHOW, spare,SILENT)
    BF(4,      0,ACT_CHECK, location,"User")
    BF(1,      1,ACT_CHECK, ext_2,SILENT)
    BF(7,      57,ACT_CHECK, cause,"bearer cap not authorized")
IE_END(cause_57)

IE_BEGIN(cause_81)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
    BF(2,      3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(1,      0,ACT_SHOW, spare,SILENT)
    BF(4,      0,ACT_CHECK, location,"User")
    BF(1,      1,ACT_CHECK, ext_2,SILENT)
    BF(7,      81,ACT_CHECK, cause,"invalid transaction identifier")
IE_END(cause_81)

IE_BEGIN(cause_88)
    BF(8,      2,ACT_CHECK, length,"two octets")
    BF(1,      1,ACT_CHECK, ext_1,SILENT)
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        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          88,ACT_CHECK, cause,"incompatible destination")
    IE_END(cause_88)

    IE_BEGIN(cause_102_303)
        BF(8,          5,ACT_CHECK, length,"five octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          102,ACT_CHECK, cause,"recovery on timer expiry")
        BF(8,          0x33,ACT_CHECK, diag_0,"3")
        BF(8,          0x30,ACT_CHECK, diag_1,"0")
        BF(8,          0x33,ACT_CHECK, diag_2,"3")
    IE_END(cause_102_303)

    IE_BEGIN(cause_102_310)
        BF(8,          5,ACT_CHECK, length,"five octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          102,ACT_CHECK, cause,"recovery on timer expiry")
        BF(8,          0x33,ACT_CHECK, diag_0,"3")
        BF(8,          0x31,ACT_CHECK, diag_1,"1")
        BF(8,          0x30,ACT_CHECK, diag_2,"0")
    IE_END(cause_102_310)

    IE_BEGIN(cause_102_313)
        BF(8,          5,ACT_CHECK, length,"five octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          102,ACT_CHECK, cause,"recovery on timer expiry")
        BF(8,          0x33,ACT_CHECK, diag_0,"3")
        BF(8,          0x31,ACT_CHECK, diag_1,"1")
        BF(8,          0x33,ACT_CHECK, diag_2,"3")
    IE_END(cause_102_313)

    IE_BEGIN(cause_97_20)
        BF(8,          3,ACT_CHECK, length,"three octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          97,ACT_CHECK, cause,"message not implemented")
        BF(8,          0x20,ACT_CHECK, diag_0,"message type 0x20")
    IE_END(cause_97_20)

    IE_BEGIN(cause_16)
        BF(8,          2,ACT_CHECK, length,"two octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)

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        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          16,ACT_CHECK, cause,"normal clearing")
    IE_END(cause_16)

    IE_BEGIN(cause_30)
        BF(8,          2,ACT_CHECK, length,"two octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          30,ACT_CHECK, cause,"response to enquiry")
    IE_END(cause_30)

    IE_BEGIN(cause_not_checked)
        BF(8,          2,ACT_CHECK, length,"two octets")
        BF(1,          1,ACT_CHECK, ext_1,SILENT)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(1,          0,ACT_SHOW,  spare,SILENT)
        BF(4,          0,ACT_CHECK, location,"User")
        BF(1,          1,ACT_CHECK, ext_2,SILENT)
        BF(7,          0,ACT_SHOW,  cause,"any cause")
    IE_END(cause_not_checked)

    IE_BEGIN(call_state_1)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          1,ACT_CHECK, call_state_value,"U1 Call Initiated")
    IE_END(call_state_1)

    IE_BEGIN(call_state_3)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          3,ACT_CHECK, call_state_value,"U3 Call Proceeding")
    IE_END(call_state_3)

    IE_BEGIN(call_state_4)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          4,ACT_CHECK, call_state_value,"U4 Call Delivered")
    IE_END(call_state_4)

    IE_BEGIN(call_state_7)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          7,ACT_CHECK, call_state_value,"U7 Call Receiving")
    IE_END(call_state_7)

    IE_BEGIN(call_state_8)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          8,ACT_CHECK, call_state_value,"U8 Connect Request")
    IE_END(call_state_8)

    IE_BEGIN(call_state_9)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          9,ACT_CHECK, call_state_value,"U9 Call Confirmed")
    IE_END(call_state_9)

    IE_BEGIN(call_state_10)
        BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
        BF(6,          10,ACT_CHECK, call_state_value,"U10 Call Active")
    
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IE_END(call_state_10)

IE_BEGIN(call_state_11)
    BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(6,          11,ACT_CHECK, call_state_value,"U11 Disconnect Request")
IE_END(call_state_11)

IE_BEGIN(call_state_12)
    BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(6,          12,ACT_CHECK, call_state_value,"U12 Disconnect Ind")
IE_END(call_state_12)

IE_BEGIN(call_state_19)
    BF(2,          3,ACT_CHECK, coding_standard, "GSM Standard")
    BF(6,          19,ACT_CHECK, call_state_value,"U19 Release Request")
IE_END(call_state_19)

IE_BEGIN(signal_call_waiting)
    BF(8,M8(0,0,0,0,0,1,1,1),ACT_CHECK,signal_value,"(Any non-res. value)")
IE_END(signal_call_waiting)

IE_BEGIN(spare_half_octet)
    BF(4, 0,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(spare_half_octet)

IE_BEGIN(facility_unstructured_data)
    BF(8, 0x25,ACT_CHECK,length_of_fac_ie_content,SILENT)
    BF(8, 0xA1,ACT_CHECK,component_type_tag,"INVOKE")
    BF(8, 0x23,ACT_CHECK,component_length, SILENT)
    BF(8, 0x02,ACT_CHECK,invoke_id_tag, SILENT)
    BF(8, 0x01,ACT_CHECK,invoke_id_length, SILENT)
    BF(8, 0x00,ACT_CHECK,invoke_id, SILENT)
    BF(8, 0x02,ACT_CHECK,operation_code_tag, SILENT)
    BF(8, 0x01,ACT_CHECK,operation_code_length, SILENT)
    BF(8, 0x3b,ACT_CHECK,operation_code, "Process unstructured SS data")
    BF(8, 0x30,ACT_CHECK,Process_SS_Arg, SILENT)
    BF(8, 0x1b,ACT_CHECK,Process_SS_Arg_length, SILENT)
    BF(8, 0x04,ACT_CHECK,tag_dcs, SILENT)
    BF(8, 0x01,ACT_CHECK,length_dcs, SILENT)
    BF(8, 0x0F,ACT_CHECK,dcs, SILENT)
    BF(8, 0x04,ACT_CHECK,tag_data, SILENT)
    BF(8, 0x16,ACT_CHECK,length_data, SILENT)
    BF(8, 0x2A,ACT_CHECK,dig_1, "*")
    BF(8, 0x18,ACT_CHECK,dig_2, "0")
    BF(8, 0x4c,ACT_CHECK,dig_3, "0")
    BF(8, 0x05,ACT_CHECK,dig_4, "*")
    BF(8, 0x8b,ACT_CHECK,dig_5, "0")
    BF(8, 0xc9,ACT_CHECK,dig_6, "1")
    BF(8, 0x66,ACT_CHECK,dig_7, "2")
    BF(8, 0xb4,ACT_CHECK,dig_8, "3")
    BF(8, 0x9a,ACT_CHECK,dig_9, "4")
    BF(8, 0xed,ACT_CHECK,dig_10,"5")
    BF(8, 0x86,ACT_CHECK,dig_11,"6")
    BF(8, 0xcb,ACT_CHECK,dig_12,"7")
    BF(8, 0xc1,ACT_CHECK,dig_13,"8")
    BF(8, 0x62,ACT_CHECK,dig_14,"9")
    BF(8, 0xb2,ACT_CHECK,dig_15,"0")
    BF(8, 0x19,ACT_CHECK,dig_16,"1")
    BF(8, 0xad,ACT_CHECK,dig_17,"2")
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    BF(8,    0x66,ACT_CHECK,dig_18,"3")
    BF(8,    0xbb,ACT_CHECK,dig_19,"4")
    BF(8,    0xe1,ACT_CHECK,dig_20,"5")
    BF(8,    0x46,ACT_CHECK,dig_21,"6")
    BF(8,    0x00,ACT_CHECK,dig_22,"7")
IE_END(facility_unstructured_data)

IE_BEGIN(facility_invoke_aoc)
    BF(8,    45 ,ACT_CHECK,length_of_fac_ie_content,SILENT)
    BF(8,    0xA1,ACT_CHECK,component_type_tag,"INVOKE")
    BF(8,    0x80,ACT_CHECK,component_length, SILENT)
    BF(8,    0x02,ACT_CHECK,invoke_id_tag, SILENT)
    BF(8,    0x01,ACT_CHECK,invoke_id_length, SILENT)
    BF(8,    0x05,ACT_CHECK,invoke_id, SILENT)
    BF(8,    0x02,ACT_CHECK,operation_code_tag, SILENT)
    BF(8,    0x01,ACT_CHECK,operation_code_length, SILENT)
    BF(8,    0x7D,ACT_CHECK,operation_code, "advice of charge")
    BF(8,    0x30,ACT_CHECK,ForwardChargeAdviceArg, SILENT)
    BF(8,    0x21,ACT_CHECK,ForwardChargeAdviceLength, SILENT)
    BF(8,    0x80,ACT_CHECK,ss_code_tag, SILENT)
    BF(8,    0x01,ACT_CHECK,ss_code_length, SILENT)
    BF(8,    0x72,ACT_CHECK,ss_code, "AoC-Charging")
    BF(8,    0xA1,ACT_CHECK,charging_information, SILENT)
    BF(8,    0x1C,ACT_CHECK,charging_information_length, SILENT)
    BF(8,    0x81,ACT_CHECK,e1_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e1_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e1, SILENT)
    BF(8,    0x82,ACT_CHECK,e2_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e2_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e2, SILENT)
    BF(8,    0x83,ACT_CHECK,e3_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e3_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e3, SILENT)
    BF(8,    0x84,ACT_CHECK,e4_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e4_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e4, SILENT)
    BF(8,    0x85,ACT_CHECK,e5_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e5_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e5, SILENT)
    BF(8,    0x86,ACT_CHECK,e6_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e6_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e6, SILENT)
    BF(8,    0x87,ACT_CHECK,e7_tag, SILENT)
    BF(8,    0x02,ACT_CHECK,e7_length, SILENT)
    BF(16,   0x00,ACT_CHECK,e7, SILENT)
    BF(8,    0x00,ACT_CHECK,end_of_content_tag, SILENT)
    BF(8,    0x00,ACT_CHECK,length_indicator, SILENT)
IE_END(facility_invoke_aoc)

IE_BEGIN(facility_return_result_aoc)
    BF(8,    5 ,ACT_CHECK,length_of_fac_ie_content,SILENT)
    BF(8,    0xA2,ACT_CHECK,component_type_tag,"RETURN RESULT")
    BF(8,    0x03,ACT_CHECK,component_length, SILENT)
    BF(8,    0x02,ACT_CHECK,invoke_id_tag, SILENT)
    BF(8,    0x01,ACT_CHECK,invoke_id_length, SILENT)
    BF(8,    0x05,ACT_CHECK,invoke_id, SILENT)
IE_END(facility_return_result_aoc)

IE_BEGIN(timing_advance)
    BF(2,0,ACT_CHECK,          spare,SILENT)

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    BF(6,0,ACT_CHECK,timing_advance,"0"    )
IE_END(timing_advance)

IE_BEGIN(transaction_identifier_source_1)
    BF(4,M4(0,0,0,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_1)

IE_BEGIN(transaction_identifier_source_2)
    BF(4,M4(0,0,1,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_2)

IE_BEGIN(transaction_identifier_source_3)
    BF(4,M4(0,0,1,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_3)

IE_BEGIN(transaction_identifier_source_4)
    BF(4,M4(0,1,0,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_4)

IE_BEGIN(transaction_identifier_source_5)
    BF(4,M4(0,1,0,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_5)

IE_BEGIN(transaction_identifier_source_6)
    BF(4,M4(0,1,1,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_source_6)

IE_BEGIN(transaction_identifier_dest_1)
    BF(4,M4(1,0,0,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_1)

IE_BEGIN(transaction_identifier_dest_2)
    BF(4,M4(1,0,1,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_2)

IE_BEGIN(transaction_identifier_dest_3)
    BF(4,M4(1,0,1,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_3)

IE_BEGIN(transaction_identifier_dest_4)
    BF(4,M4(1,1,0,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_4)

IE_BEGIN(transaction_identifier_dest_5)
    BF(4,M4(1,1,0,1),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_5)

IE_BEGIN(transaction_identifier_dest_6)
    BF(4,M4(1,1,1,0),ACT_CHECK,ANONYMOUS,SILENT)
IE_END(transaction_identifier_dest_6)

IE_BEGIN(authentication_request_message_type)
    BF(1,    0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,    0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x12,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(authentication_request_message_type)

IE_BEGIN(identity_request_message_type)
    BF(1,    0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1,    0,ACT_SHOW, ANONYMOUS,SILENT)
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    BF(6, 0x18,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(identity_request_message_type)

IE_BEGIN(identity_response_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x19,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(identity_response_message_type)

IE_BEGIN(tmsi_reallocation_command_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x1A,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(tmsi_reallocation_command_message_type)

IE_BEGIN(tmsi_reallocation_complete_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x1B,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(tmsi_reallocation_complete_message_type)

IE_BEGIN(cm_reestablish_request_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x28,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(cm_reestablish_request_message_type)

IE_BEGIN(authentication_response_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x14,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(authentication_response_message_type)

IE_BEGIN(ss_register_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x3B,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(ss_register_message_type)

IE_BEGIN(setup_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x05,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(setup_message_type)

IE_BEGIN(call_confirmed_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x08,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(call_confirmed_message_type)

IE_BEGIN(connect_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x07,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(connect_message_type)

IE_BEGIN(connect_acknowledge_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
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    BF(6, 0x0F,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(connect_acknowledge_message_type)

IE_BEGIN(alerting_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x01,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(alerting_message_type)

IE_BEGIN(facility_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x3A,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(facility_message_type)

IE_BEGIN(progress_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x03,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(progress_message_type)

IE_BEGIN(status_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x3D,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(status_message_type)

IE_BEGIN(status_enquiry_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x34,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(status_enquiry_message_type)

IE_BEGIN(notify_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x3E,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(notify_message_type)

IE_BEGIN(unknown_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x20,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(unknown_message_type)

IE_BEGIN(disconnect_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x25,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(disconnect_message_type)

IE_BEGIN(release_complete_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x2A,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(release_complete_message_type)

IE_BEGIN(release_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
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    BF(6, 0x2D,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(release_message_type)

IE_BEGIN(channel_release_message_type)
    BF(8, 0x0D,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(channel_release_message_type)

IE_BEGIN(start_dtmf_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x35,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(start_dtmf_message_type)

IE_BEGIN(start_dtmf_acknowledge_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x36,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(start_dtmf_acknowledge_message_type)

IE_BEGIN(call_control_capabilities)
    BF(8, 1,ACT_CHECK,length,SILENT)
    BF(6, 0,ACT_CHECK,spare,SILENT)
    BF(1, 1,ACT_CHECK,pcp,SILENT)
    BF(1, 1,ACT_CHECK,dtmf,SILENT)
IE_END(call_control_capabilities)

IE_BEGIN(stop_dtmf_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x31,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(stop_dtmf_message_type)

IE_BEGIN(stop_dtmf_acknowledge_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x32,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(stop_dtmf_acknowledge_message_type)

IE_BEGIN(start_dtmf_reject_message_type)
    BF(1, 0,ACT_CHECK,ANONYMOUS,SILENT)
    BF(1, 0,ACT_SHOW, ANONYMOUS,SILENT)
    BF(6, 0x37,ACT_CHECK,ANONYMOUS,SILENT)
IE_END(start_dtmf_reject_message_type)

IE_BEGIN(user_user_disconnect)
    BF(8, 5,ACT_CHECK,length,SILENT)
    BF(8, 1,ACT_CHECK,pd, SILENT)
    BF(8, 0x30,ACT_CHECK,octet1,SILENT)
    BF(8, 0x34,ACT_CHECK,octet2,SILENT)
    BF(8, 0x35,ACT_CHECK,octet3,SILENT)
    BF(8, 0x36,ACT_CHECK,octet4,SILENT)
IE_END(user_user_disconnect)

IE_BEGIN(user_user_setup)
    BF(8, 5,ACT_CHECK,length,SILENT)
    BF(8, 1,ACT_CHECK,pd, SILENT)
    BF(8, 0x30,ACT_CHECK,octet1,SILENT)
    BF(8, 0x31,ACT_CHECK,octet2,SILENT)
    BF(8, 0x32,ACT_CHECK,octet3,SILENT)
    BF(8, 0x33,ACT_CHECK,octet4,SILENT)
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IE_END(user_user_setup)

IE_BEGIN(notify_user_resumed)
    BF(8, 1, ACT_CHECK, notific, SILENT)
IE_END(notify_user_resumed)

MSG3_BEGIN(paging_request_type_1)
    IE(l2_pseudo_length_11)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_request_type_1_message_type)
    IE(channels_needed_for_mobiles_1_and_2)
    IE(page_mode)
    IE(mobile_identity)
    IE(p1_rest_octets)
MSG3_END(paging_request_type_1)

MSG3_BEGIN(paging_request_type_1_tmsi)
    IE(l2_pseudo_length_11)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_request_type_1_message_type)
    IE(channels_needed_for_mobiles_1_and_2)
    IE(page_mode)
    IE(mobile_identity_tmsi)
    IE(p1_rest_octets)
MSG3_END(paging_request_type_1_tmsi)

MSG3_BEGIN(paging_request_type_2_tmsi)
    IE(l2_pseudo_length_11)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_request_type_2_message_type)
    IE(channels_needed_for_mobiles_1_and_2)
    IE(page_mode)
    IE(tmsi)
    IE(tmsi_2)
    IE(p2_rest_octets)
MSG3_END(paging_request_type_2_tmsi)

MSG3_BEGIN(paging_request_type_3_tmsi)
    IE(l2_pseudo_length_11)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_request_type_3_message_type)
    IE(channels_needed_for_mobiles_1_and_2)
    IE(page_mode)
    IE(tmsi)
    IE(tmsi_2)
    IE(tmsi_2)
    IE(tmsi_2)
    IE(p3_rest_octets)
MSG3_END(paging_request_type_3_tmsi)

MSG3_BEGIN(channel_request)
    IE(rach)
MSG3_END(channel_request)
MSG3_BEGIN(channel_request_ss)
    IE(rach_111)
MSG3_END(channel_request_ss)
```

```
MSG3_BEGIN(channel_request_moc)
    IE(rach_moc)
MSG3_END(channel_request_moc)
MSG3_BEGIN(channel_request_reest_neci_0)
    IE(rach_reest_neci_0)
MSG3_END(channel_request_reest_neci_0)
MSG3_BEGIN(immediate_assignment)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(immediate_assignment_message_type)
    IE(spare_half_octet)
    IE(page_mode)
    IE(channel_description)
    IE(request_reference)
    IE(timing_advance)
    IE(mobile_allocation)
    IE(ia_rest_octets)
MSG3_END(immediate_assignment)
MSG3_BEGIN(immediate_assignment_tch)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(immediate_assignment_message_type)
    IE(spare_half_octet)
    IE(page_mode)
    IE(channel_description_tch)
    IE(request_reference)
    IE(timing_advance)
    IE(mobile_allocation)
    IE(ia_rest_octets)
MSG3_END(immediate_assignment_tch)
MSG3_BEGIN(immediate_assignment_1900)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(immediate_assignment_message_type)
    IE(spare_half_octet)
    IE(page_mode)
    IE(channel_description_1900)
    IE(request_reference)
    IE(timing_advance)
    IE(mobile_allocation)
    IE(ia_rest_octets)
MSG3_END(immediate_assignment_1900)
MSG3_BEGIN(paging_response)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(paging_response)

MSG3_BEGIN(paging_response_ciph2)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
```

```
    IE(ciphering_key_sequence_number_2)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(paging_response_ciph2)

MSG3_BEGIN(paging_response_2)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number_2)
    IE(ms_classmark_dual_ext)
    IE(mobile_identity)
MSG3_END(paging_response_2)

MSG3_BEGIN(paging_response_1900)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number)
    IE(ms_classmark_1900)
    IE(mobile_identity)
MSG3_END(paging_response_1900)

MSG3_BEGIN(paging_response_tmsi)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number)
    IE(ms_classmark)
    IE(mobile_identity_tmsi)
MSG3_END(paging_response_tmsi)

MSG3_BEGIN(paging_response_cksn_2)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(paging_response_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number_2)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(paging_response_cksn_2)

MSG3_BEGIN(authentication_request)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(authentication_request_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number_2)
    IE(authentication_parameter_rand)
MSG3_END(authentication_request)
MSG3_BEGIN(authentication_response)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(authentication_response_message_type)
    IE(authentication_parameter_sres)
MSG3_END(authentication_response)
```

```
MSG3_BEGIN(identity_request)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(identity_request_message_type)
    IE(spare_half_octet)
    IE(identity_type)
MSG3_END(identity_request)
```

```
MSG3_BEGIN(identity_response)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(identity_response_message_type)
    IE(mobile_identity)
MSG3_END(identity_response)

MSG3_BEGIN(cm_service_request)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number)
    IE(cm_service_type_moc)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(cm_service_request)

MSG3_BEGIN(cm_service_request_sms)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number)
    IE(cm_service_type_sms)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(cm_service_request_sms)

MSG3_BEGIN(cm_service_request_sms2)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number_2)
    IE(cm_service_type_sms)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(cm_service_request_sms2)

MSG3_BEGIN(cm_service_request_1900)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number)
    IE(cm_service_type_moc)
    IE(ms_classmark_1900)
    IE(mobile_identity)
MSG3_END(cm_service_request_1900)

MSG3_BEGIN(cm_service_request_dual_ext)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number)
    IE(cm_service_type_moc)
    IE(ms_classmark_dual_ext)
    IE(mobile_identity)
MSG3_END(cm_service_request_dual_ext)

MSG3_BEGIN(cm_service_request_ss)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
```



```
    IE(cm_service_request_message_type)
    IE(ciphering_key_sequence_number)
    IE(cm_service_type_ss)
    IE(ms_classmark)
    IE(mobile_identity)
MSG3_END(cm_service_request_ss)

MSG3_BEGIN(cm_reestablish_request)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_reestablish_request_message_type)
    IE(spare_half_octet)
    IE(ciphering_key_sequence_number_2)
    IE(ms_classmark)
    IE(mobile_identity_tmsi)
    IE(iei_13)
    IE(location_area_identification)
MSG3_END(cm_reestablish_request)

MSG3_BEGIN(cm_service_abort)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_abort_message_type)
MSG3_END(cm_service_abort)

MSG3_BEGIN(cm_service_reject)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_reject_message_type)
    IE(reject_cause)
MSG3_END(cm_service_reject)

MSG3_BEGIN(cm_service_accept)
    IE(skip_indicator)
    IE(mobility_management_protocol_discriminator)
    IE(cm_service_accept_message_type)
MSG3_END(cm_service_accept)

MSG3_BEGIN(ciphering_mode_command)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(ciphering_mode_command_message_type)
    IE(cipher_response)
    IE(ciphering_mode_setting)
MSG3_END(ciphering_mode_command)

MSG3_BEGIN(ciphering_mode_complete)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(ciphering_mode_complete_message_type)
MSG3_END(ciphering_mode_complete)

MSG3_BEGIN(channel_mode_modify)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(channel_mode_modify_message_type)
    IE(channel_description_tch)
    IE(channel_mode_speech)
MSG3_END(channel_mode_modify)
```

```
MSG3_BEGIN(channel_mode_modify_acknowledge)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(channel_mode_modify_acknowledge_message_type)
    IE(channel_description_tch)
    IE(channel_mode_speech)
MSG3_END(channel_mode_modify_acknowledge)

MSG3_BEGIN(setup) /* contains 'signal' but no 'Bearer Cap' */
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_34)
    IE(signal_call_waiting)
MSG3_END(setup)

MSG3_BEGIN(setup_user_to_user)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_34)
    IE(signal_call_waiting)
    IE(iei_7E)
    IE(user_user_setup)
MSG3_END(setup_user_to_user)

MSG3_BEGIN(setup_no_signal)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
MSG3_END(setup_no_signal)

MSG3_BEGIN(setup_no_signal_aoc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_1C)
    IE(facility_invoke_aoc)
MSG3_END(setup_no_signal_aoc)

MSG3_BEGIN(setup_moc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_04)
    IE(bearer_capability)
    IE(iei_5E)
    IE(called_party_bcd_number)
    IE(iei_15)
    IE(call_control_capabilities)
MSG3_END(setup_moc)

MSG3_BEGIN(setup_rlp)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_04)
    IE(bearer_capability_rlp)
    IE(iei_5E)
    IE(called_party_bcd_number)
```

```
    IE(iei_15)
    IE(call_control_capabilities)
MSG3_END(setup_rlp)

MSG3_BEGIN(setup_mocEFR)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_04)
    IE(bearer_capabilityEFR)
    IE(iei_5E)
    IE(called_party_bcd_number)
    IE(iei_15)
    IE(call_control_capabilities)
MSG3_END(setup_mocEFR)

MSG3_BEGIN(setup_moc_1900)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_04)
    IE(bearer_capability_3_voc)
    IE(iei_5E)
    IE(called_party_bcd_number)
    IE(iei_15)
    IE(call_control_capabilities)
MSG3_END(setup_moc_1900)

MSG3_BEGIN(setup_data)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(setup_message_type)
    IE(iei_04)
    IE(bearer_capability_data)
    IE(iei_5E)
    IE(called_party_bcd_number)
MSG3_END(setup_data)

MSG3_BEGIN(call_confirmed) /* contains bearer capability */
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_confirmed_message_type)
    IE(iei_04)
    IE(bearer_capability)
    IE(iei_15)
    IE(cc_capabilities)
MSG3_END(call_confirmed)

MSG3_BEGIN(call_confirmed_1900) /* contains bearer capability */
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_confirmed_message_type)
    IE(iei_04)
    IE(bearer_capability_3_voc)
    IE(iei_15)
    IE(cc_capabilities)
MSG3_END(call_confirmed_1900)

MSG3_BEGIN(call_confirmed_user_busy) /* contains cause user busy */
    IE(transaction_identifier_dest)
```

```
    IE(call_control_protocol_discriminator)
    IE(call_confirmed_message_type)
    IE(iei_04)
    IE(bearer_capability)
    IE(iei_08)
    IE(cause_17)
    IE(iei_15)
    IE(cc_capabilities)
MSG3_END(call_confirmed_user_busy)

MSG3_BEGIN(call_confirmed_no_neg)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_confirmed_message_type)
    IE(iei_15)
    IE(cc_capabilities)
MSG3_END(call_confirmed_no_neg)

MSG3_BEGIN(call_proceeding)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_proceeding_message_type)
MSG3_END(call_proceeding)

MSG3_BEGIN(call_proceeding_rlp)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_proceeding_message_type)
    IE(iei_04)
    IE(bearer_capability_rlp)
MSG3_END(call_proceeding_rlp)

MSG3_BEGIN(call_proceeding_aoc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(call_proceeding_message_type)
    IE(iei_1C)
    IE(facility_invoke_aoc)
MSG3_END(call_proceeding_aoc)

MSG3_BEGIN(connect)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(connect_message_type)
MSG3_END(connect)

MSG3_BEGIN(connect_aoc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(connect_message_type)
    IE(iei_1C)
    IE(facility_invoke_aoc)
MSG3_END(connect_aoc)

MSG3_BEGIN(unknown_message)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(unknown_message_type)
MSG3_END(unknown_message)
```

```
MSG3_BEGIN(unknown_message_mtc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(unknown_message_type)
MSG3_END(unknown_message_mtc)

MSG3_BEGIN(alerting)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(alerting_message_type)
MSG3_END(alerting)

MSG3_BEGIN(alerting_aoc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(alerting_message_type)
    IE(iei_1C)
    IE(facility_invoke_aoc)
MSG3_END(alerting_aoc)

MSG3_BEGIN(progress)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(progress_message_type)
    IE(progress_indicator_32)
MSG3_END(progress)

MSG3_BEGIN(progress_1)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(progress_message_type)
    IE(progress_indicator_8)
MSG3_END(progress_1)

MSG3_BEGIN(assignment_command)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_command_message_type)
    IE(description_of_the_first_channel_after_time)
    IE(power_command)
    IE(iei_63)
    IE(mode_of_the_first_channel)
MSG3_END(assignment_command)

MSG3_BEGIN(assignment_command_1900)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_command_message_type)
    IE(description_of_the_first_channel_after_time_1900)
    IE(power_command)
    IE(iei_63)
    IE(mode_of_the_first_channel)
MSG3_END(assignment_command_1900)

MSG3_BEGIN(assignment_command_efr)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_command_message_type)
    IE(description_of_the_first_channel_after_time)
    IE(power_command)
```

```
    IE(iei_63)
    IE(mode_of_the_first_channel_efr)
MSG3_END(assignment_command_efr)

MSG3_BEGIN(assignment_command_data_12k)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_command_message_type)
    IE(description_of_the_first_channel_after_time)
    IE(power_command)
    IE(iei_63)
    IE(mode_of_the_first_channel_data_12k)
MSG3_END(assignment_command_data_12k)

MSG3_BEGIN(assignment_complete)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_complete_message_type)
    IE(rr_cause)
MSG3_END(assignment_complete)

MSG3_BEGIN(handover_complete)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(handover_complete_message_type)
    IE(rr_cause)
MSG3_END(handover_complete)

MSG3_BEGIN(connect_acknowledge)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(connect_acknowledge_message_type)
MSG3_END(connect_acknowledge)

MSG3_BEGIN(status_enquiry_0)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_0)

MSG3_BEGIN(status_enquiry_1)
    IE(transaction_identifier_dest_1)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_1)

MSG3_BEGIN(status_enquiry_2)
    IE(transaction_identifier_dest_2)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_2)

MSG3_BEGIN(status_enquiry_3)
    IE(transaction_identifier_dest_3)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_3)

MSG3_BEGIN(status_enquiry_4)
    IE(transaction_identifier_dest_4)
```

```
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_4)

MSG3_BEGIN(status_enquiry_5)
    IE(transaction_identifier_dest_5)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_5)

MSG3_BEGIN(status_enquiry_6)
    IE(transaction_identifier_dest_6)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_6)

MSG3_BEGIN(status_enquiry_0_mtc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_0_mtc)

MSG3_BEGIN(status_enquiry_1_mtc)
    IE(transaction_identifier_source_1)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_1_mtc)

MSG3_BEGIN(status_enquiry_2_mtc)
    IE(transaction_identifier_source_2)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_2_mtc)

MSG3_BEGIN(status_enquiry_3_mtc)
    IE(transaction_identifier_source_3)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_3_mtc)

MSG3_BEGIN(status_enquiry_4_mtc)
    IE(transaction_identifier_source_4)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_4_mtc)

MSG3_BEGIN(status_enquiry_5_mtc)
    IE(transaction_identifier_source_5)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_5_mtc)

MSG3_BEGIN(status_enquiry_6_mtc)
    IE(transaction_identifier_source_6)
    IE(call_control_protocol_discriminator)
    IE(status_enquiry_message_type)
MSG3_END(status_enquiry_6_mtc)

MSG3_BEGIN(notify)
    IE(transaction_identifier_source)
```

```
    IE(call_control_protocol_discriminator)
    IE(notify_message_type)
    IE(notify_user_resumed)
MSG3_END(notify)
```

```
MSG3_BEGIN(disconnect_t303)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_102_303)
MSG3_END(disconnect_t303)
```

```
MSG3_BEGIN(disconnect_t310)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_102_310)
MSG3_END(disconnect_t310)
```

```
MSG3_BEGIN(disconnect_t313)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_102_313)
MSG3_END(disconnect_t313)
```

```
MSG3_BEGIN(disconnect_8)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
    IE(iei_1E)
    IE(progress_indicator_8)
MSG3_END(disconnect_8)
```

```
MSG3_BEGIN(disconnect_8_mtc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
    IE(iei_1E)
    IE(progress_indicator_8)
MSG3_END(disconnect_8_mtc)
```

```
MSG3_BEGIN(disconnect_ms)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
MSG3_END(disconnect_ms)
```

```
MSG3_BEGIN(disconnect_user_to_user)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
    IE(iei_7E)
    IE(user_user_disconnect)
MSG3_END(disconnect_user_to_user)
```



```
MSG3_BEGIN(disconnect)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
MSG3_END(disconnect)

MSG3_BEGIN(disconnect_no_cause)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_not_checked)
MSG3_END(disconnect_no_cause)

MSG3_BEGIN(disconnect_aoc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_16)
    IE(iei_1C)
    IE(facility_invoke_aoc)
MSG3_END(disconnect_aoc)

MSG3_BEGIN(disconnect_ccbs_offered)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_17)
    IE(iei_7B)
    IE(allowed_actions_ccbs)
MSG3_END(disconnect_ccbs_offered)

MSG3_BEGIN(disconnect_8_ccbs_offered)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(disconnect_message_type)
    IE(cause_17)
    IE(iei_1E)
    IE(progress_indicator_8)
    IE(iei_7B)
    IE(allowed_actions_ccbs)
MSG3_END(disconnect_8_ccbs_offered)

MSG3_BEGIN(release_complete)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_03)
MSG3_END(release_complete)

MSG3_BEGIN(release_complete_ms)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
MSG3_END(release_complete_ms)

MSG3_BEGIN(release_complete_empty)
    IE(transaction_identifier_dest)
```

```
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
MSG3_END(release_complete_empty)

MSG3_BEGIN(release)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(release_message_type)
MSG3_END(release)

MSG3_BEGIN(release_mtc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(release_message_type)
MSG3_END(release_mtc)

MSG3_BEGIN(release_t305)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(release_message_type)
    IE(iei_08)
    IE(cause_16)
MSG3_END(release_t305)

MSG3_BEGIN(release_bs)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(release_message_type)
    IE(iei_08)
    IE(cause_31)
MSG3_END(release_bs)

MSG3_BEGIN(release_complete_88)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_88)
MSG3_END(release_complete_88)

MSG3_BEGIN(release_complete_bs)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
MSG3_END(release_complete_bs)

MSG3_BEGIN(release_complete_0)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_0)

MSG3_BEGIN(release_complete_1)
    IE(transaction_identifier_source_1)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
```

```
MSG3_END(release_complete_1)

MSG3_BEGIN(release_complete_2)
    IE(transaction_identifier_source_2)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_2)

MSG3_BEGIN(release_complete_3)
    IE(transaction_identifier_source_3)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_3)

MSG3_BEGIN(release_complete_4)
    IE(transaction_identifier_source_4)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_4)

MSG3_BEGIN(release_complete_5)
    IE(transaction_identifier_source_5)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_5)

MSG3_BEGIN(release_complete_6)
    IE(transaction_identifier_source_6)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_6)

MSG3_BEGIN(release_complete_0_mtc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_0_mtc)

MSG3_BEGIN(release_complete_1_mtc)
    IE(transaction_identifier_dest_1)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_1_mtc)

MSG3_BEGIN(release_complete_2_mtc)
    IE(transaction_identifier_dest_2)
```

```
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_2_mtc)

MSG3_BEGIN(release_complete_3_mtc)
    IE(transaction_identifier_dest_3)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_3_mtc)

MSG3_BEGIN(release_complete_4_mtc)
    IE(transaction_identifier_dest_4)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_4_mtc)

MSG3_BEGIN(release_complete_5_mtc)
    IE(transaction_identifier_dest_5)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_5_mtc)

MSG3_BEGIN(release_complete_6_mtc)
    IE(transaction_identifier_dest_6)
    IE(call_control_protocol_discriminator)
    IE(release_complete_message_type)
    IE(iei_08)
    IE(cause_81)
MSG3_END(release_complete_6_mtc)

MSG3_BEGIN(channel_release)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(channel_release_message_type)
    IE(rr_cause)
MSG3_END(channel_release)

MSG3_BEGIN(status_30_1)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_1)
MSG3_END(status_30_1)

MSG3_BEGIN(status_30_3)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_3)
```

```
MSG3_END(status_30_3)

MSG3_BEGIN(status_30_4)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_4)
MSG3_END(status_30_4)

MSG3_BEGIN(status_30_7)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_7)
MSG3_END(status_30_7)

MSG3_BEGIN(status_30_8)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_8)
MSG3_END(status_30_8)

MSG3_BEGIN(status_30_9)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_9)
MSG3_END(status_30_9)

MSG3_BEGIN(status_30_10)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_10)
MSG3_END(status_30_10)

MSG3_BEGIN(status_30_10_mtc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_10)
MSG3_END(status_30_10_mtc)

MSG3_BEGIN(status_30_11)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_11)
MSG3_END(status_30_11)

MSG3_BEGIN(status_30_11_mtc)
    IE(transaction_identifier_dest)
```

```
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_11)
MSG3_END(status_30_11_mtc)

MSG3_BEGIN(status_30_12)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_12)
MSG3_END(status_30_12)

MSG3_BEGIN(status_30_12_mtc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_12)
MSG3_END(status_30_12_mtc)

MSG3_BEGIN(status_30_19)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_19)
MSG3_END(status_30_19)

MSG3_BEGIN(status_30_19_mtc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_30)
    IE(call_state_19)
MSG3_END(status_30_19_mtc)

MSG3_BEGIN(status_97_1)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_1)
MSG3_END(status_97_1)

MSG3_BEGIN(status_97_3)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_3)
MSG3_END(status_97_3)

MSG3_BEGIN(status_97_4)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_4)
```

```
MSG3_END(status_97_4)

MSG3_BEGIN(status_97_7)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_7)
MSG3_END(status_97_7)

MSG3_BEGIN(status_97_8)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_8)
MSG3_END(status_97_8)

MSG3_BEGIN(status_97_9)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_9)
MSG3_END(status_97_9)

MSG3_BEGIN(status_97_11)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_11)
MSG3_END(status_97_11)

MSG3_BEGIN(status_97_12)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(status_message_type)
    IE(cause_97_20)
    IE(call_state_12)
MSG3_END(status_97_12)

MSG3_BEGIN(stop_dtmf)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(stop_dtmf_message_type)
MSG3_END(stop_dtmf)

MSG3_BEGIN(stop_dtmf_acknowledge)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(stop_dtmf_acknowledge_message_type)
MSG3_END(stop_dtmf_acknowledge)

MSG3_BEGIN(start_dtmf_reject)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_reject_message_type)
    IE(cause_03)
MSG3_END(start_dtmf_reject)
```

```
MSG3_BEGIN(start_dtmf_0)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_0)
MSG3_END(start_dtmf_0)

MSG3_BEGIN(start_dtmf_1)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_1)
MSG3_END(start_dtmf_1)

MSG3_BEGIN(start_dtmf_2)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_2)
MSG3_END(start_dtmf_2)

MSG3_BEGIN(start_dtmf_3)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_3)
MSG3_END(start_dtmf_3)

MSG3_BEGIN(start_dtmf_4)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_4)
MSG3_END(start_dtmf_4)

MSG3_BEGIN(start_dtmf_5)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_5)
MSG3_END(start_dtmf_5)

MSG3_BEGIN(start_dtmf_6)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_6)
MSG3_END(start_dtmf_6)

MSG3_BEGIN(start_dtmf_7)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
```



```
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_7)
MSG3_END(start_dtmf_7)

MSG3_BEGIN(start_dtmf_8)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_8)
MSG3_END(start_dtmf_8)

MSG3_BEGIN(start_dtmf_9)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_9)
MSG3_END(start_dtmf_9)

MSG3_BEGIN(start_dtmf_A)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_A)
MSG3_END(start_dtmf_A)

MSG3_BEGIN(start_dtmf_B)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_B)
MSG3_END(start_dtmf_B)

MSG3_BEGIN(start_dtmf_C)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_C)
MSG3_END(start_dtmf_C)

MSG3_BEGIN(start_dtmf_D)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_D)
MSG3_END(start_dtmf_D)

MSG3_BEGIN(start_dtmf_star)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_star)
MSG3_END(start_dtmf_star)
```

```
MSG3_BEGIN(start_dtmf_hash)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_message_type)
    IE(iei_2C)
    IE(keypad_facility_hash)
MSG3_END(start_dtmf_hash)

MSG3_BEGIN(start_dtmf_acknowledge_0)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_0)
MSG3_END(start_dtmf_acknowledge_0)

MSG3_BEGIN(start_dtmf_acknowledge_1)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_1)
MSG3_END(start_dtmf_acknowledge_1)

MSG3_BEGIN(start_dtmf_acknowledge_2)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_2)
MSG3_END(start_dtmf_acknowledge_2)

MSG3_BEGIN(start_dtmf_acknowledge_3)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_3)
MSG3_END(start_dtmf_acknowledge_3)

MSG3_BEGIN(start_dtmf_acknowledge_4)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_4)
MSG3_END(start_dtmf_acknowledge_4)

MSG3_BEGIN(start_dtmf_acknowledge_5)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_5)
MSG3_END(start_dtmf_acknowledge_5)

MSG3_BEGIN(start_dtmf_acknowledge_6)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
```

```
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_6)
MSG3_END(start_dtmf_acknowledge_6)

MSG3_BEGIN(start_dtmf_acknowledge_7)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_7)
MSG3_END(start_dtmf_acknowledge_7)

MSG3_BEGIN(start_dtmf_acknowledge_8)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_8)
MSG3_END(start_dtmf_acknowledge_8)

MSG3_BEGIN(start_dtmf_acknowledge_9)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_9)
MSG3_END(start_dtmf_acknowledge_9)

MSG3_BEGIN(start_dtmf_acknowledge_A)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_A)
MSG3_END(start_dtmf_acknowledge_A)

MSG3_BEGIN(start_dtmf_acknowledge_B)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_B)
MSG3_END(start_dtmf_acknowledge_B)

MSG3_BEGIN(start_dtmf_acknowledge_C)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_C)
MSG3_END(start_dtmf_acknowledge_C)

MSG3_BEGIN(start_dtmf_acknowledge_D)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_D)
MSG3_END(start_dtmf_acknowledge_D)
```

```
MSG3_BEGIN(start_dtmf_acknowledge_star)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_star)
MSG3_END(start_dtmf_acknowledge_star)

MSG3_BEGIN(start_dtmf_acknowledge_hash)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(start_dtmf_acknowledge_message_type)
    IE(iei_2C)
    IE(keypad_facility_hash)
MSG3_END(start_dtmf_acknowledge_hash)

MSG3_BEGIN(handover_command)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(handover_command_message_type)
    IE(cell_description)
    IE(channel_description_ho)
    IE(handover_reference)
    IE(power_command)
    IE(iei_D)
    IE(sync_ind_synch)
MSG3_END(handover_command)

MSG3_BEGIN(handover_access)
    IE(handover_reference)
MSG3_END(handover_access)

MSG3_BEGIN(handover_failure)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(handover_failure_message_type)
    IE(rr_cause_1)
MSG3_END(handover_failure)

MSG3_BEGIN(assignment_failure)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(assignment_failure_message_type)
    IE(rr_cause_6F)
MSG3_END(assignment_failure)

MSG3_BEGIN(modify_data)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(modify_message_type)
    IE(bearer_capability_data)
MSG3_END(modify_data)

MSG3_BEGIN(modify_reject)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(modify_reject_message_type)
    IE(bearer_capability)
    IE(cause_57)
```

```
MSG3_END(modify_reject)

MSG3_BEGIN(system_information_type_1_A)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_1_message_type)
    IE(cell_channel_description)
    IE(rach_control_parameter_reest)
    IE(si_1_rest_octets)
MSG3_END(system_information_type_1_A)
MSG3_BEGIN(system_information_type_2_A)
    IE(l2_pseudo_length_22)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_2_message_type)
    IE(bcch_frequency_list)
    IE(ncc_permitted)
    IE(rach_control_parameter_reest)
MSG3_END(system_information_type_2_A)
MSG3_BEGIN(system_information_type_3_A)
    IE(l2_pseudo_length_18)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_3_message_type)
    IE(cell_identity)
    IE(location_area_identification)
    IE(control_channel_description)
    IE(cell_options)
    IE(cell_selection_parameter)
    IE(rach_control_parameter_reest)
    IE(si_3_rest_octets)
MSG3_END(system_information_type_3_A)
MSG3_BEGIN(system_information_type_4_A)
    IE(l2_pseudo_length_12)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_4_message_type)
    IE(location_area_identification)
    IE(cell_selection_parameter)
    IE(rach_control_parameter_reest)
    IE(si_4_rest_octets)
MSG3_END(system_information_type_4_A)

MSG3_BEGIN(system_information_type_1_B)
    IE(l2_pseudo_length_21)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_1_message_type)
    IE(cell_channel_description)
    IE(rach_control_parameter_reest)
    IE(si_1_rest_octets)
MSG3_END(system_information_type_1_B)
MSG3_BEGIN(system_information_type_2_B)
    IE(l2_pseudo_length_22)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_2_message_type)
    IE(bcch_frequency_list)
    IE(ncc_permitted)
```

```
    IE(rach_control_parameter_reest)
MSG3_END(system_information_type_2_B)
MSG3_BEGIN(system_information_type_3_B)
    IE(l2_pseudo_length_18)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_3_message_type)
    IE(cell_identity_B)
    IE(location_area_identification_B)
    IE(control_channel_description)
    IE(cell_options)
    IE(cell_selection_parameter)
    IE(rach_control_parameter_reest)
    IE(si_3_rest_octets)
MSG3_END(system_information_type_3_B)
MSG3_BEGIN(system_information_type_4_B)
    IE(l2_pseudo_length_12)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_4_message_type)
    IE(location_area_identification_B)
    IE(cell_selection_parameter)
    IE(rach_control_parameter_reest)
    IE(si_4_rest_octets)
MSG3_END(system_information_type_4_B)
MSG3_BEGIN(system_information_type_5_B)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_5_message_type)
    IE(bcch_frequency_list)
MSG3_END(system_information_type_5_B)
MSG3_BEGIN(system_information_type_6_B)
    IE(skip_indicator)
    IE(rr_management_protocol_discriminator)
    IE(system_information_type_6_message_type)
    IE(cell_identity)
    IE(location_area_identification_B)
    IE(cell_options)
    IE(ncc_permitted)
MSG3_END(system_information_type_6_B)

MSG3_BEGIN( tmsi_reallocation_command)
    IE( skip_indicator )
    IE( mobility_management_protocol_discriminator )
    IE( tmsi_reallocation_command_message_type )
    IE( location_area_identification)
    IE( mobile_identity_tmsi)
MSG3_END( tmsi_reallocation_command)

MSG3_BEGIN( tmsi_reallocation_complete)
    IE( skip_indicator )
    IE( mobility_management_protocol_discriminator )
    IE( tmsi_reallocation_complete_message_type )
MSG3_END( tmsi_reallocation_complete)

MSG3_BEGIN(ss_register_unstructured_data)
    IE(transaction_identifier_source)
    IE(supplementary_services_protocol_discriminator)
    IE(ss_register_message_type)
    IE(iei_1C)
    IE(facility_unstructured_data)
```

```
    IE(iei_7F)
    IE(ss_version)
MSG3_END(ss_register_unstructured_data)

MSG3_BEGIN(facility_mt_aoc)
    IE(transaction_identifier_dest)
    IE(call_control_protocol_discriminator)
    IE(facility_message_type)
    IE(facility_return_result_aoc)
MSG3_END(facility_mt_aoc)

MSG3_BEGIN(facility_aoc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(facility_message_type)
    IE(facility_invoke_aoc)
MSG3_END(facility_aoc)

MSG3_BEGIN(facility_mo_aoc)
    IE(transaction_identifier_source)
    IE(call_control_protocol_discriminator)
    IE(facility_message_type)
    IE(facility_return_result_aoc)
MSG3_END(facility_mo_aoc)
```

MSG3 BEGIN(cp data sms submit)
IE(transaction identifier source)
IE(sms protocol discriminator)
IE(cp data message type)
IE(cp user data sms submit)
MSG3 END(cp data sms submit)

MSG3 BEGIN(cp data sms command)
IE(transaction identifier source)
IE(sms protocol discriminator)
IE(cp data message type)
IE(cp user data sms command)
MSG3 END(cp data sms command)

MSG3 BEGIN(cp ack to ms mo)
IE(transaction identifier dest)
IE(sms protocol discriminator)
IE(cp ack message type)
MSG3 END(cp ack to ms mo)

MSG3 BEGIN(cp data rp ack to ms mo)
IE(transaction identifier dest)
IE(sms protocol discriminator)
IE(cp data message type)
IE(cp user data rp ack to ms)
MSG3 END(cp data rp ack to ms mo)

MSG3 BEGIN(cp ack to bs mo)
IE(transaction identifier source)
IE(sms protocol discriminator)
IE(cp ack message type)
MSG3 END(cp ack to bs mo)

4 TEST CASES

4.1 Preambles

4.1.1 BMIM001: Power On

Description: This test describes the initialization of environment and activation of the Mobile Station.

Preamble: None

Script:

```
ISS_INIT (4);

BS_SET_SYS_INFO ( 0 , system_information_type_1 );
BS_SET_SYS_INFO ( 0 , system_information_type_2 );
BS_SET_SYS_INFO ( 0 , system_information_type_3 );
BS_SET_SYS_INFO ( 0 , system_information_type_4 );
BS_SET_SYS_INFO_SACCH ( 0 , system_information_type_5 );
BS_SET_SYS_INFO_SACCH ( 0 , system_information_type_6 );

BS_SET_SCH ( 0 , BSIC , RFN );
BS_SET_ARFCN ( 0 , ARFCN_BCCH );
BS_SET_POWER ( 0 , -50 );
BS_ON_OFF ( 0 , TRUE );

COMMAND ("CST REDIRECT L1 TAP")
COMMAND ("MMI CONFIG KEY_SEQUENCE=POWER");

ISS_DELAY (20000);
```

History: 17.12.97 LE Initial

4.1.2 BMIM002: MOC procedure 1, U0.1 (26.8.1.2/1)

Description: This test describes the mobile originated call setup up to the CC state U0.1.

Preamble: BMIM001

Script:

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 LE Initial

4.1.3 BMIM005: MOC procedure 1, U1 (26.8.1.2/1)

Description: This test describes the mobile originated call setup up to the CC state U1.

Preamble: BMIM002

Script:

```
BS_MSG3_SEND (0,ciphering_mode_command,SILENT) ;  
BS_MSG3_AWAIT(0,ciphering_mode_complete,SILENT) ;  
  
BS_MSG3_AWAIT(0,setup_moc,SILENT) ;
```

History:	17.12.97	LE	Initial
----------	----------	----	---------

4.1.4 BMIM009: MOC procedure 1, U3 (26.8.1.2/1)

Description: This test describes the mobile originated call setup up to the CC state U3.

Preamble: BMIM005

Script:

```
BS_MSG3_SEND (0,call_proceeding,SILENT) ;
```

History:	17.12.97	LE	Initial
----------	----------	----	---------

4.1.5 BMIM012: MOC procedure 1, U4 (26.8.1.2/1)

Description: This test describes the mobile originated call setup up to the CC state U4.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,alerting,SILENT) ;
```

History:	17.12.97	LE	Initial
----------	----------	----	---------

4.1.6 BMIM014: MOC procedure 1, U10 (26.8.1.2/1)

Description: This test describes the mobile originated call setup up to the CC state U10.

Preamble: BMIM012

Script:

```
BS_MSG3_SEND (0,assignment_command,SILENT);  
BS_MSG3_AWAIT(0,assignment_complete,SILENT);
```

```
BS_MSG3_SEND (0,connect,SILENT);  
BS_MSG3_AWAIT(0,connect_acknowledge,SILENT);
```

History: 17.12.97 LE Initial

4.1.7 BMIM018: MOC procedure 1, U12 (26.8.1.2/1 A)

Description: This test describes the mobile originated call setup up to the CC state U12.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT) ;  
ISS_DELAY (10000) ;
```

History: 17.12.97 LE Initial

4.2 MMI Call Control Tests

4.2.1 BMIM143: U12 / Call Releasing requested by the User (26.8.1.2.8.1)

Description: The call control entity of the MS being in the state, U12, the user requests to terminate the call. This test is applicable only for mobile stations supporting bearer capability for speech.

Preamble: BMIM018

Script:

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0, channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);
```

History: 17.12.97 MS Initial

4.3 MMI Call Release Test, U10

4.3.1 BMIM150: Call Release followed by Mobile Originated Call (1)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.2 BMIM151: Call Release followed by Mobile Originated Call (2)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release complete message followed by a channel release message.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.3 BMIM152: Call Release followed by Mobile Originated Call (3)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a channel release message.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link  
(DISC/UA)");
```

```
ISS_DELAY (10000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");
```

```
BS_RACH_AWAIT(0,channel_request_moc,SILENT);  
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);  
BS_STORE_RACH_PARAMS (0, 0);  
BS_MSG3_SEND (0,immediate_assignment,SILENT);
```

```
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);  
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.4 BMIM153: Call Release followed by Mobile Originated Call (4)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started by a lower layer failure.

Preamble: BMIM014

Script:

```
BS_SET_ERROR (0,1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.5 BMIM154: Call Release followed by Mobile Originated Call (5)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release message. In the following the messages release complete / channel release are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND ( 0, release_mtc, SILENT)

BS_MSG3_AWAIT (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.6 BMIM155: Call Release followed by Mobile Originated Call (6)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / channel release are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.7 BMIM156: Call Release followed by Mobile Originated Call (7)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release and radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_SET_ERROR (0,1)
ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.8 BMIM157: Call Release followed by Mobile Originated Call (8)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release complete message followed by a radio link failure.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0,1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.9 BMIM158: Call Release followed by Mobile Originated Call (9)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release message. In the following the messages release complete / radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND ( 0, release_mtc, SILENT)
```

```
BS_MSG3_AWAIT (0, release_complete_ms, SILENT);
```

```
BS_SET_ERROR (0, 1);
```

```
ISS_DELAY (10000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");
```

```
BS_RACH_AWAIT(0, channel_request_moc, SILENT);
```

```
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
```

```
BS_STORE_RACH_PARAMS (0, 0);
```

```
BS_MSG3_SEND (0, immediate_assignment, SILENT);
```

```
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
```

```
BS_MSG3_AWAIT(0, cm_service_request, SILENT);
```

History: 17.12.97 MS Initial

4.3.10 BMIM159: Call Release followed by Mobile Originated Call (10)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.11 BMIM160: Call Release followed by Mobile Originated Call (10)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.12 BMIM161: Call Release followed by Mobile Originated Call (12)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / channel release are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.13 BMIM162: Call Release followed by Mobile Originated Call (13)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with in-band tones message. In the following the messages release and radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_SET_ERROR (0,1)
ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.14 BMIM163: Call Release followed by Mobile Originated Call (14)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with in-band tones message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.15 BMIM164: Call Release followed by Mobile Originated Call (15)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT);
BS_MSG3_AWAIT (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.16 BMIM165: Call Release followed by Mobile Originated Call (16)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages release complete / channel release are exchanged.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.17 BMIM166: Call Release followed by Mobile Originated Call (17)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the message channel release is send back.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.18 BMIM167: Call Release followed by Mobile Originated Call (18)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a radio link failure occurs.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");  
  
BS_MSG3_AWAIT (0,disconnect_ms,SILENT);  
  
BS_SET_ERROR (0,1);  
  
ISS_DELAY (10000);  
  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");  
  
BS_RACH_AWAIT(0,channel_request_moc,SILENT);  
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);  
BS_STORE_RACH_PARAMS (0, 0);  
BS_MSG3_SEND (0,immediate_assignment,SILENT);  
  
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);  
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.19 BMIM168: Call Release followed by Mobile Originated Call (19)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a release and channel release message is send.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT)
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.20 BMIM169: Call Release followed by Mobile Originated Call (20)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a release and a radio link failure is send.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT)

BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.21 BMIM170: Call Release followed by Mobile Originated Call (21)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.22 BMIM171: Call Release followed by Mobile Originated Call (22)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect with inband tones / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect_8,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.23 BMIM173: Call Release followed by Mobile Originated Call (24)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / END KEY / release complete / radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.3.24 BMIM174: Call Release followed by Mobile Originated Call (25)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM014

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4 MMI Call Release Test, U3, no TCH

4.4.1 BMIM172: Call Release followed by Mobile Originated Call (23)

Description: The MS is in U3 state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect without inband tones / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
```

```
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.2 BMIM179: Call Release followed by Mobile Originated Call (21)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM014

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_mtc,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);
```

```
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);  
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.3 BMIM250: Call Release followed by Mobile Originated Call (1)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.4 BMIM251: Call Release followed by Mobile Originated Call (2)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release complete message followed by a channel release message.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.5 BMIM252: Call Release followed by Mobile Originated Call (3)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a channel release message.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link  
(DISC/UA)");
```

```
ISS_DELAY (10000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");  
ISS_DELAY (1000);  
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");
```

```
BS_RACH_AWAIT(0,channel_request_moc,SILENT);  
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);  
BS_STORE_RACH_PARAMS (0, 0);  
BS_MSG3_SEND (0,immediate_assignment,SILENT);
```

```
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);  
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.6 BMIM253: Call Release followed by Mobile Originated Call (4)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started by a lower layer failure.

Preamble: BMIM009

Script:

```
BS_SET_ERROR (0,1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.7 BMIM254: Call Release followed by Mobile Originated Call (5)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release message. In the following the messages release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND ( 0, release_mtc, SILENT)

BS_MSG3_AWAIT (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.8 BMIM255: Call Release followed by Mobile Originated Call (6)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.9 BMIM256: Call Release followed by Mobile Originated Call (7)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release and radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_SET_ERROR (0,1)
ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.10 BMIM257: Call Release followed by Mobile Originated Call (8)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release complete message followed by a radio link failure.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0,1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History:	17.12.97	MS	Initial
----------	----------	----	---------

4.4.11 BMIM258: Call Release followed by Mobile Originated Call (9)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a release message. In the following the messages release complete / radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND ( 0, release_mtc, SILENT)
```

```
BS_MSG3_AWAIT (0,release_complete_ms,SILENT);
```

```
BS_SET_ERROR (0, 1);
```

```
ISS_DELAY (10000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
```

```
ISS_DELAY (1000);
```

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");
```

```
BS_RACH_AWAIT(0,channel_request_moc,SILENT);
```

```
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
```

```
BS_STORE_RACH_PARAMS (0, 0);
```

```
BS_MSG3_SEND (0,immediate_assignment,SILENT);
```

```
BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
```

```
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.12 BMIM259: Call Release followed by Mobile Originated Call (10)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.13 BMIM260: Call Release followed by Mobile Originated Call (10)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.14 BMIM261: Call Release followed by Mobile Originated Call (12)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.15 BMIM262: Call Release followed by Mobile Originated Call (13)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with in-band tones message. In the following the messages release and radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_SET_ERROR (0,1)
ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.16 BMIM263: Call Release followed by Mobile Originated Call (14)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with in-band tones message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.17 BMIM264: Call Release followed by Mobile Originated Call (15)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT);
BS_MSG3_AWAIT (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.18 BMIM265: Call Release followed by Mobile Originated Call (16)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.19 BMIM266: Call Release followed by Mobile Originated Call (17)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the message channel release is send back.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.20 BMIM267: Call Release followed by Mobile Originated Call (18)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a radio link failure occurs.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_SET_ERROR (0,1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.21 BMIM268: Call Release followed by Mobile Originated Call (19)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a release and channel release message is send.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT)
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.22 BMIM269: Call Release followed by Mobile Originated Call (20)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following a release and a radio link failure is send.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);
BS_MSG3_SEND ( 0, release_mtc, SILENT)

BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.23 BMIM270: Call Release followed by Mobile Originated Call (21)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete_ms,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```


History: 17.12.97 MS Initial

4.4.24 BMIM271: Call Release followed by Mobile Originated Call (22)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the mobile with a disconnect message. In the following the messages disconnect with inband tones / release / release complete / channel release are exchanged. This is a collision testcase.

Preamble: BMIM009

Script:

```
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_AWAIT (0,disconnect_ms,SILENT);

BS_MSG3_SEND (0,disconnect_8,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
(DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.25 BMIM273: Call Release followed by Mobile Originated Call (24)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / END KEY / release complete / radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT( 0, release, SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.26 BMIM274: Call Release followed by Mobile Originated Call (25)

Description: The MS is in call active state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect message. In the following the messages release / release complete / radio link failure are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect,SILENT);
BS_MSG3_AWAIT( 0, release, SILENT)
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");

BS_MSG3_SEND ( 0, status_enquiry_0, SILENT)
BS_MSG3_AWAIT( 0, status_30_19, "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_SET_ERROR (0, 1);

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.4.27 BMIM275: Call Release followed by Mobile Originated Call (25)

Description: The MS is in U3 state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,disconnect_8,SILENT);
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT(0,release,SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0,          SILENT)
BS_MSG3_AWAIT( 0, status_30_19,              "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
                                   (DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.5 MMI Call Release Test, U3, TCH

4.5.1 BMIM176: Call Release followed by Mobile Originated Call (26)

Description: The MS is in U3 state. The call is released and a new mobile originated call is started. The call release is started from the network with a disconnect with inband-tones message. In the following the messages release / release complete / channel release are exchanged.

Preamble: BMIM009

Script:

```
BS_MSG3_SEND (0,assignment_command,SILENT);
BS_MSG3_AWAIT(0,assignment_complete,SILENT);

BS_MSG3_SEND (0,disconnect_8,SILENT);
ISS_DELAY (4000)
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
BS_MSG3_AWAIT(0,release,SILENT)

BS_MSG3_SEND ( 0, status_enquiry_0,          SILENT)
BS_MSG3_AWAIT( 0, status_30_19,              "cause 30#, state U19")

BS_MSG3_SEND (0,release_complete,SILENT);
BS_MSG3_SEND (0,channel_release, "the MS shall release the main signalling link
                                   (DISC/UA)");

ISS_DELAY (10000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=3");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=0");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=9");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=4");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=7");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=SEND");

BS_RACH_AWAIT(0,channel_request_moc,SILENT);
BS_CONFIG_CHANNEL (0, AGCH, UNACK, SAPI_0);
BS_STORE_RACH_PARAMS (0, 0);
BS_MSG3_SEND (0,immediate_assignment,SILENT);

BS_CONFIG_CHANNEL (0, SDCCH, 1, SAPI_0);
```

```
BS_MSG3_AWAIT(0,cm_service_request,SILENT);
```

History: 17.12.97 MS Initial

4.6 Engineering Mode

4.6.1 BMIM200: Check Engineering Mode (I)

Description: This test describes the activation of engineering mode and display of MCC, MNC and LAC.

Preamble: BMIM001

Script:

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (3000);

COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=UP");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=UP");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=UP");
ISS_DELAY (3000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=RIGHT");
ISS_DELAY (8000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);

ISS_DELAY (50000);
BS_SET_POWER ( 0 , -70 );
ISS_DELAY (50000);
```

History: 17.12.97 LE Initial

4.7 SMS Tests

4.7.1 BMIM300: SMS mobile terminated , class 0 and 2 and replace protocol identifier

Description: To verify the ability of a MS to receive and decode the SMS where provided for the point to point service. First a class 2 message is received. Then this message is replaced by a class 0 message and the MMI tries to read this message.

Preamble: BMIM001

Script:

```

BS_CONFIG_CHANNEL ( 0, PCH, UNACK, SAPI_0)
BS_MSG3_SEND      ( 0, paging_request_type_1, "1" )
BS_RACH_AWAIT     ( 0, channel_request, "2: Establishment cause is Answer to paging"
                  )

BS_CONFIG_CHANNEL ( 0, AGCH, UNACK, SAPI_0)
BS_STORE_RACH_PARAMS ( 0, 0);
BS_MSG3_SEND      ( 0, immediate_assignment, "3: SS assigns an SDCCH" )
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_AWAIT     ( 0, paging_response, "4: Message is contained in SABM." )
BS_MSG3_SEND      ( 0, authentication_request, "5" )
BS_MSG3_AWAIT     ( 0, authentication_response, "6: SRES specifies correct value." )
BS_MSG3_SEND      ( 0, ciphering_mode_command, "7: SS starts deciphering after sending the
                  message." )
BS_MSG3_AWAIT     ( 0, ciphering_mode_complete, "8: Shall be sent enciphered. All following
                  messages shall be sent enciphered." )
NOT_IMPLEMENTED   ( "9: SS starts ciphering." )
/*
not implemented
BS_MSG3_SEND      ( 0, sabm(sapi=3), "10: SS establishes SAPI 3" )
BS_MSG3_AWAIT     ( 0, ua(sapi=3), "11: MS shall respond to SABM in step 10" )
*/
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_3)
BS_MSG3_SEND      ( 0, cp_data_sms_deliver_0, "12: Contains RP-DATA RPDU (SMS DELIVER
                  TPDU)" )
NOT_IMPLEMENTED   ( "13: Waits max 25 seconds for CP-ACK" )
BS_MSG3_AWAIT     ( 0, cp_ack_to_bs, "14" )
NOT_IMPLEMENTED   ( "15: Waits max 60 seconds for RP-ACK RPDU" )
BS_MSG3_AWAIT     ( 0, cp_data_rp_ack_to_bs, "16: Contains RP-ACK RPDU" )
BS_MSG3_SEND      ( 0, cp_ack_to_ms, "17: Within TCIM after step 16, no further
                  CP-DATA messages" )

BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_SEND      ( 0, channel_release, "18: The main signalling link is released."
                  )
NOT_IMPLEMENTED   ( "19: The MS shall indicate that an SM has
                  arrived. If the MS provides the
                  functionality to display MT messages, it is
                  checked that the correct message is
                  displayed" )

ISS_DELAY (10000);

BS_CONFIG_CHANNEL ( 0, PCH, UNACK, SAPI_0)
BS_MSG3_SEND      ( 0, paging_request_type_1, "1" )
BS_RACH_AWAIT     ( 0, channel_request, "2: Establishment cause is Answer to paging"
                  )

BS_CONFIG_CHANNEL ( 0, AGCH, UNACK, SAPI_0)
BS_STORE_RACH_PARAMS ( 0, 0);
BS_MSG3_SEND      ( 0, immediate_assignment, "3: SS assigns an SDCCH" )
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_AWAIT     ( 0, paging_response_ciph2, "4: Message is contained in SABM." )
BS_MSG3_SEND      ( 0, authentication_request, "5" )
BS_MSG3_AWAIT     ( 0, authentication_response, "6: SRES specifies correct value." )
BS_MSG3_SEND      ( 0, ciphering_mode_command, "7: SS starts deciphering after sending the
                  message." )
BS_MSG3_AWAIT     ( 0, ciphering_mode_complete, "8: Shall be sent enciphered. All following
                  messages shall be sent enciphered." )
NOT_IMPLEMENTED   ( "9: SS starts ciphering." )
/*
not implemented
BS_MSG3_SEND      ( 0, sabm(sapi=3), "10: SS establishes SAPI 3" )
BS_MSG3_AWAIT     ( 0, ua(sapi=3), "11: MS shall respond to SABM in step 10" )

```

```

*/
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_3)
BS_MSG3_SEND      ( 0, cp_data_sms_deliver_2, "12: Contains RP-DATA RPDU (SMS DELIVER
TPDU)" )
NOT_IMPLEMENTED   (
BS_MSG3_AWAIT     ( 0, cp_ack_to_bs, "13: Waits max 25 seconds for CP-ACK" )
NOT_IMPLEMENTED   ( "14" )
BS_MSG3_AWAIT     ( 0, cp_data_rp_ack_to_bs, "15: Waits max 60 seconds for RP-ACK RPDU" )
BS_MSG3_SEND      ( 0, cp_ack_to_ms, "16: Contains RP-ACK RPDU" )
                  "17: Within TCiM after step 16, no further
                  CP-DATA messages" )

BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_SEND      ( 0, channel_release, "18: The main signalling link is released."
                  )

```

History: 17.12.97 LE Initial

4.7.2 BMIM301: SMS mobile terminated , direct reading

Description: A mobile originated SMS has received. After indication to the user the left softkey is used for direct reading.

Preamble: BMIM001

Script:

```

BS_CONFIG_CHANNEL ( 0, PCH, UNACK, SAPI_0)
BS_MSG3_SEND      ( 0, paging_request_type_1, "1" )
BS_RACH_AWAIT     ( 0, channel_request, "2: Establishment cause is Answer to paging"
)

BS_CONFIG_CHANNEL ( 0, AGCH, UNACK, SAPI_0)
BS_STORE_RACH_PARAMS ( 0, 0);
BS_MSG3_SEND      ( 0, immediate_assignment, "3: SS assigns an SDCCH" )
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_AWAIT     ( 0, paging_response, "4: Message is contained in SABM." )
BS_MSG3_SEND      ( 0, authentication_request, "5" )
BS_MSG3_AWAIT     ( 0, authentication_response, "6: SRES specifies correct value." )
BS_MSG3_SEND      ( 0, ciphering_mode_command, "7: SS starts deciphering after sending the
message." )
BS_MSG3_AWAIT     ( 0, ciphering_mode_complete, "8: Shall be sent enciphered. All following
messages shall be sent enciphered." )

NOT_IMPLEMENTED   ( "9: SS starts ciphering." )
/*
not implemented
BS_MSG3_SEND      ( 0, sabm(sapi=3), "10: SS establishes SAPI 3" )
BS_MSG3_AWAIT     ( 0, ua(sapi=3), "11: MS shall respond to SABM in step 10" )
*/
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_3)
BS_MSG3_SEND      ( 0, cp_data_sms_deliver_0, "12: Contains RP-DATA RPDU (SMS DELIVER
TPDU)" )
NOT_IMPLEMENTED   ( "13: Waits max 25 seconds for CP-ACK" )
BS_MSG3_AWAIT     ( 0, cp_ack_to_bs, "14" )
NOT_IMPLEMENTED   ( "15: Waits max 60 seconds for RP-ACK RPDU" )
BS_MSG3_AWAIT     ( 0, cp_data_rp_ack_to_bs, "16: Contains RP-ACK RPDU" )
BS_MSG3_SEND      ( 0, cp_ack_to_ms, "17: Within TC1M after step 16, no further
CP-DATA messages" )

BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_SEND      ( 0, channel_release, "18: The main signalling link is released."
)
NOT_IMPLEMENTED   ( "19: The MS shall indicate that an SM has
arrived. If the MS provides the
functionality to display MT messages, it is
checked that the correct message is
displayed" )

```

COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (5000);

History: 17.12.97 LE Initial

4.7.3 BMIM302: SMS mobile terminated , reading via menu

Description: A mobile originated SMS has received. After indication to the user the right softkey is used to get back to idle screen and then the menu is entered.

Preamble: BMIM001

Script:

```

BS_CONFIG_CHANNEL ( 0, PCH, UNACK, SAPI_0)
BS_MSG3_SEND      ( 0, paging_request_type_1, "1" )
BS_RACH_AWAIT     ( 0, channel_request, "2: Establishment cause is Answer to paging" )

BS_CONFIG_CHANNEL ( 0, AGCH, UNACK, SAPI_0)
BS_STORE_RACH_PARAMS ( 0, 0);
BS_MSG3_SEND      ( 0, immediate_assignment, "3: SS assigns an SDCCH" )
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_AWAIT     ( 0, paging_response, "4: Message is contained in SABM." )
BS_MSG3_SEND      ( 0, authentication_request, "5" )
BS_MSG3_AWAIT     ( 0, authentication_response, "6: SRES specifies correct value." )
BS_MSG3_SEND      ( 0, ciphering_mode_command, "7: SS starts deciphering after sending the message." )
BS_MSG3_AWAIT     ( 0, ciphering_mode_complete, "8: Shall be sent enciphered. All following messages shall be sent enciphered." )
NOT_IMPLEMENTED   ( "9: SS starts ciphering." )
/*
not implemented
BS_MSG3_SEND      ( 0, sabm(sapi=3), "10: SS establishes SAPI 3" )
BS_MSG3_AWAIT     ( 0, ua(sapi=3), "11: MS shall respond to SABM in step 10" )
*/
BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_3)
BS_MSG3_SEND      ( 0, cp_data_sms_deliver_0, "12: Contains RP-DATA RPDU (SMS DELIVER TPDU)" )
NOT_IMPLEMENTED   ( "13: Waits max 25 seconds for CP-ACK" )
BS_MSG3_AWAIT     ( 0, cp_ack_to_bs, "14" )
NOT_IMPLEMENTED   ( "15: Waits max 60 seconds for RP-ACK RPDU" )
BS_MSG3_AWAIT     ( 0, cp_data_rp_ack_to_bs, "16: Contains RP-ACK RPDU" )
BS_MSG3_SEND      ( 0, cp_ack_to_ms, "17: Within TCIM after step 16, no further CP-DATA messages" )

BS_CONFIG_CHANNEL ( 0, SDCCH, ACK, SAPI_0)
BS_MSG3_SEND      ( 0, channel_release, "18: The main signalling link is released." )
NOT_IMPLEMENTED   ( "19: The MS shall indicate that an SM has arrived. If the MS provides the functionality to display MT messages, it is checked that the correct message is displayed" )

ISS_DELAY (7000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=1");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (5000);

```

History: 17.12.97 LE Initial

4.7.4 BMIM303: SMS mobile terminated , enter option menu

Description: A mobile terminated SMS has received. After indication to the user the right softkey is used to get back to idle screen and then the menu is entered. The message is read. The option menu of the SMS is entered.

Preamble: BMIM302

Script:

```
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");  
ISS_DELAY (5000);
```

History:	17.12.97	LE	Initial
----------	----------	----	---------


```

ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");

BS_RACH_AWAIT      ( 0, channel_request_ss,      "1: Establishment cause is Other procedures
                                                    which can be completed with an SDCCH" NECI
                                                    = 0" )

BS_CONFIG_CHANNEL  ( 0, AGCH, UNACK,SAPI_0)
BS_STORE_RACH_PARAMS ( 0, 0);
BS_MSG3_SEND       ( 0, immediate_assignment,    "2: SS assigns an SDCCH" )
BS_CONFIG_CHANNEL  ( 0, SDCCH, ACK, SAPI_0);
BS_MSG3_AWAIT      ( 0, cm_service_request_sms,  "3: Message is contained in SABM on SAPI 0.
                                                    CM service type set to Short message
                                                    transfer" )

BS_MSG3_SEND       ( 0, authentication_request,  "4" )
BS_MSG3_AWAIT      ( 0, authentication_response, "5: SRES specifies correct value." )
BS_MSG3_SEND       ( 0, ciphering_mode_command,  "6: SS starts deciphering after sending the
                                                    message." )

BS_MSG3_AWAIT      ( 0, ciphering_mode_complete, "7: Shall be sent enciphered. All following
                                                    messages shall be sent enciphered." )

NOT_IMPLEMENTED    (
NOT_IMPLEMENTED    (
BS_CONFIG_CHANNEL  ( 0, SDCCH, ACK, SAPI_3);
BS_MSG3_AWAIT      ( 0, cp_data_sms_submit,      "11: Contains RP-DATA RPDU (SMS SUBMIT
                                                    TPDU)" )

BS_MSG3_SEND       ( 0, cp_ack_to_ms_mo,         "12: Sent within TCIM after step 11" )
BS_MSG3_SEND       ( 0, cp_data_rp_ack_to_ms_mo, "13: Contains RP-ACK RPDU" )
NOT_IMPLEMENTED    (
BS_MSG3_AWAIT      ( 0, cp_ack_to_bs_mo,         "14: Waits max 25 seconds for CP-ACK" )
BS_CONFIG_CHANNEL  ( 0, SDCCH, ACK, SAPI_0);
BS_MSG3_SEND       ( 0, channel_release,         "15" )
                                                    "16: The main signalling link is released."
                                                    )

ISS_DELAY (10000);
/* Back to main menu */
COMMAND ("MMI CONFIG KEY_SEQUENCE=END");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=RIGHT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=RIGHT");
ISS_DELAY (1000);
/* Send SMS Command */
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);

```


COMMAND ("MMI CONFIG KEY_SEQUENCE=DOWN");
ISS_DELAY (1000);
COMMAND ("MMI CONFIG KEY_SEQUENCE=LEFT");

BS_RACH_AWAIT	(0, channel_request_ss,	"1: Establishment cause is Other procedures which can be completed with an SDDCH" NECI = 0")
BS_CONFIG_CHANNEL	(0, AGCH, UNACK,SAPI_0)	
BS_STORE_RACH_PARAMS	(0, 0);	
BS_MSG3_SEND	(0, immediate_assignment,	"2: SS assigns an SDCCH")
BS_CONFIG_CHANNEL	(0, SDCCH, ACK, SAPI_0);	
BS_MSG3_AWAIT	(0, cm_service_request_sms2,	"3: Message is contained in SABM on SAPI 0. CM service type set to Short message transfer")
BS_MSG3_SEND	(0, authentication_request,	"4")
BS_MSG3_AWAIT	(0, authentication_response,	"5: SRES specifies correct value.")
BS_MSG3_SEND	(0, ciphering_mode_command,	"6: SS starts deciphering after sending the message.")
BS_MSG3_AWAIT	(0, ciphering_mode_complete,	"7: Shall be sent enciphered. All following messages shall be sent enciphered.")
NOT_IMPLEMENTED	("8: SS starts ciphering.")
NOT_IMPLEMENTED	("9: MS establishes SAPI 3")
BS_CONFIG_CHANNEL	(0, SDCCH, ACK, SAPI_3);	
BS_MSG3_AWAIT	(0, cp_data_sms_command,	"11: Contains RP-DATA RPDU (SMS COMMAND)")
BS_MSG3_SEND	(0, cp_ack_to_ms_mo,	"12: Sent within TCIM after step 11")
BS_MSG3_SEND	(0, cp_data_rp_ack_to_ms_mo,	"13: Contains RP-ACK RPDU")
NOT_IMPLEMENTED	("14: Waits max 25 seconds for CP-ACK")
BS_MSG3_AWAIT	(0, cp_ack_to_bs_mo,	"15")
BS_CONFIG_CHANNEL	(0, SDCCH, ACK, SAPI_0);	
BS_MSG3_SEND	(0, channel_release,	"16: The main signalling link is released.")

ISS_DELAY (10000);

History: 17.12.97 LE Initial

Appendices

A. Acronyms

DS-WCDMA Direct Sequence/Spread Wideband Code Division Multiple Access

B. Glossary

International Mobile Telecommunication 2000 (IMT-2000/ITU-2000) Formerly referred to as FPLMTS (Future Public Land-Mobile Telephone System), this is the ITU's specification/family of standards for 3G. This initiative provides a global infrastructure through both satellite and terrestrial systems, for fixed and mobile phone users. The family of standards is a framework comprising a mix/blend of systems providing global roaming. <URL: <http://www.imt-2000.org/>>