GSM Fax & Data Services

Test Specification
ACI

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1 Document Control

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1.2 References

[1] Rec. T.4 Standardisation of group 3 facsimile apparatus for document transmission;
(CCITT-T.4, 1984)

[2] ITU-T Recommendation T.30; Series T: Terminal equipments and protocols for telematic services;
Procedures for document facsimile transmission in the general switched
telephone network;
(ITU-T.30, 1996)

[3] ITU-T Recommendation T.31; Terminals for telematic services;
Asynchronous facsimile DCE control - service class 1
(ITU-T.31, 1995)

[4] ITU-T Recommendation T.32; Terminals for telematic services;
Asynchronous facsimile DCE control - service class 2
(ITU-T.32, 1995)

[5] Rec. T.35; Terminal equipment and protocols for telematic services;
Procedures for the allocation of CCITT definde codes for non-standard facilities;
(CCITT-T.35, 1991)

[6] ITU-T Recommendation V.25 ter; Series V: data communication over the telephone network;
Interfaces and voiceband modems; Serial asynchronous automatic dialling and control
(ITU-T V.25 ter, 1997)

[7] Rec. V.42 bis Data compression procedures for data circuit terminating equipment (DCE) using error correction procedures;
(CCITT-V.42 bis, 1990)

[8] Rec. V.110 (Blue book, Vol. VIII, Fascicle VIII.1) Support of data terminal equipments (DTEs) with V-series type interfaces by an integrated services digital network (ISDN);
(CCITT-V.110, 1988)

[9] European digital cellular telecommunications system (Phase 2);
GSM Public Land Mobile Network (PLMN) connection types;
(GSM 3.10, September 1994, version 4.3.1)

[10] European digital cellular telecommunications system (Phase 2);
Technical realisation of facsimile group 3 transparent;
(GSM 3.45, September 1995, version 4.5.0)

[11] Digital cellular telecommunications system (Phase 2);
Mobile radio interface layer 3 specification;
(GSM 4.08, November 1996, version 4.17.0)

[12] European digital cellular telecommunications system (Phase 2);
Rate adaptation on the Mobile Station - Base Station System (MS - BSS) Interface;
(GSM 4.21, May 1995, version 4.6.0)

[13] European digital cellular telecommunications system (Phase 2);
Radio Link Protocol (RLP) for data and telematic services on the Mobile Station - Base Station System (MS - BSS) interface and the Base Station System - Mobile-service Switching Centre (BSS - MSC) interface
(GSM 4.22, September 1994, version 4.3.0)

[14] European digital cellular telecommunications system (Phase 2);
Radio Link Protocol (RLP) for data and telematic services on the Mobile Station - Base Station System (MS - BSS) interface and the Base Station System - Mobile-service Switching Centre (BSS - MSC) interface
(Amendment prA1 for GSM 4.22, version 4.3.0)
(GSM 4.22, March 1995, version 4.4.0)

[15] European digital cellular telecommunications system (Phase 2);
General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS);
(GSM 7.01, December 1995, version 4.10.0)

[16] European digital cellular telecommunications system (Phase 2);
Terminal Adaptation Functions (TAF) for services using asynchronous bearer capabilities;
(GSM 7.02, September 1994, version 4.5.1)

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Terminal Adaptation Functions (TAF) for services using synchronous bearer capabilities;
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[19] Digital cellular telecommunications system (Phase 2);
AT command set for GSM Mobile Equipment (ME)
(GSM 7.07, May 1996, version 4.1.0)

[20] Digital cellular telecommunication system (Phase 2);
Mobile Station (MS) conformance specification;
Part 1: Conformance specification
(GSM 11.10-1, November 1996, version 4.17.0)

[21] Digital cellular telecommunications system (Phase 2);
Mobile Station (MS) conformance specification;
Part 2: Protocol Implementation Conformance Statement (PICS)
proforma specification
(GSM 11.10-2, May 1996, version 4.15.0)

[22] Digital cellular telecommunications system (Phase 2);
Mobile Station (MS) conformance specification;
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(GSM 11.10-3, November 1996, version 4.17.0)

[23] Proposal for Rate Adaptation implemented on a DSP;
(C. Bianconi, Texas Instruments, January 1998, version 1.0)

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(C. Bianconi, Texas Instruments, March 1998, version 0.1)

[25] Users Guide
6147.300.96.100; Condat AG

[26] Service Access Point RA
8411.100.98.100; Condat AG

[27] Service Access Point RLP
8411.101.98.100; Condat AG

[28] Service Access Point L2R
8411.102.98.100; Condat AG

[29] Service Access Point FAD
8411.103.98.100; Condat AG

[30] Service Access Point T30
8411.104.98.100; Condat AG

[31] Service Access Point ACI
8411.105.98.100; Condat AG

[32] Message Sequence Charts RLP
8411.201.98.100; Condat AG

[33] Message Sequence Charts L2R
8411.202.98.100; Condat AG

[34] Message Sequence Charts FAD
8411.203.98.100; Condat AG

[35] Message Sequence Charts T30
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[36] Message Sequence Charts ACI
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8411.300.98.100; Condat AG

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8411.401.98.100; Condat AG

[39] Test Specification L2R
8411.402.98.100; Condat AG

[40] Test Specification FAD
8411.403.98.100; Condat AG

[41] Test Specification T30
8411.404.98.100; Condat AG

[42] Test Specification ACI
8411.405.98.100; Condat AG

[43] SDL Specification RLP
8411.501.98.100; Condat AG

[44] SDL Specification L2R
8411.502.98.100; Condat AG

[45] SDL Specification FAD
8411.503.98.100; Condat AG

[46] SDL Specification T30
8411.504.98.100; Condat AG

[47] SDL Specification ACI
8411.505.98.100; Condat AG

[48] Technical Documentation RLP
8411.701.98.100; Condat AG

[49] Technical Documentation L2R
8411.702.98.100; Condat AG

[50] Technical Documentation FAD
8411.703.98.100; Condat AG

[51] Technical Documentation T30
8411.704.98.100; Condat AG

[52] Technical Documentation ACI
8411.705.98.100; Condat AG

1.3 Abbreviations

ACI	AT Command Interpreter
AGCH	Access Grant Channel
AT	Attention sequence "AT" to indicate valid commands of the ACI
BCCH	Broadcast Control Channel
BCS	Binary Coded Signals
BS	Base Station
BSIC	Base Station Identification Code
C/R	Command/Response
C1	Path Loss Criterion
C2	Reselection Criterion
CBCH	Cell Broadcast Channel
CBQ	Cell Bar Qualify
CC	Call Control
CCCH	Common Control Channel
CCD	Condat Coder Decoder
CKSN	Ciphering Key Sequence Number
CRC	Cyclic Redundancy Check
DCCH	Dedicated Control Channel
DISC	Disconnect Frame
DL	Data Link Layer
DM	Disconnected Mode Frame
DTX	Discontinuous Transmission
EA	Extension Bit Address Field
EL	Extension Bit Length Field
EMMI	Electrical Man Machine Interface
EOL	End Of Line
F	Final Bit
F&D	Fax and Data Protocol Stack
FACCH	Fast Associated Control Channel
FHO	Forced Handover
GP	Guard Period
GSM	Global System for Mobile Communication
HDLC	High level Data Link Control
HISR	High level Interrupt Service Routine
HPLMN	Home Public Land Mobile Network
I	Information Frame
IMEI	International Mobile Equipment Identity
IMSI	International Mobile Subscriber Identity
ITU	International Telecommunication Union
IWF	Interworking Function
Kc	Authentication Key
L	Length Indicator
LAI	Location Area Information
LISR	Low level Interrupt Service Routine
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
MSG	Message phase in the GSM 3.45 protocol
N®	Receive Number
N(S)	Send Number
NCC	National Colour Code
NECI	New Establishment Causes included
OTD	Observed Time Difference
P	Poll Bit
P/F	Poll/Final Bit
PCH	Paging Channel
PCO	Point of Control and Observation
PDU	Protocol Description Unit
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
RTOS	Real Time Operating System
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
T.4	CCITT Standardisation for Document coding of Group 3 Facsimile Apparatus
TAP	Test Application Program
TCH	Traffic Channel
TCH/F	Traffic Channel Full Rate
TCH/H	Traffic Channel Half Rate
TDMA	Time Division Multiple Access
TE	Terminal Equipment - e. g. a PC
TMSI	Temporary Mobile Subscriber Identity
UA	Unnumbered Acknowledgement Frame
UI	Unnumbered Information Frame
V(A)	Acknowledgement State Variable
V®	Receive State Variable
V(S)	Send State Variable
VPLMN	Visiting Public Land Mobile Network

1.4 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 protocol stack for fax and data transmission consists of several entities. Each entity has one ore more service access points, over which the entity provides a service for the upper entity. The entity, which is described in this document, is coloured grey in the following figure :

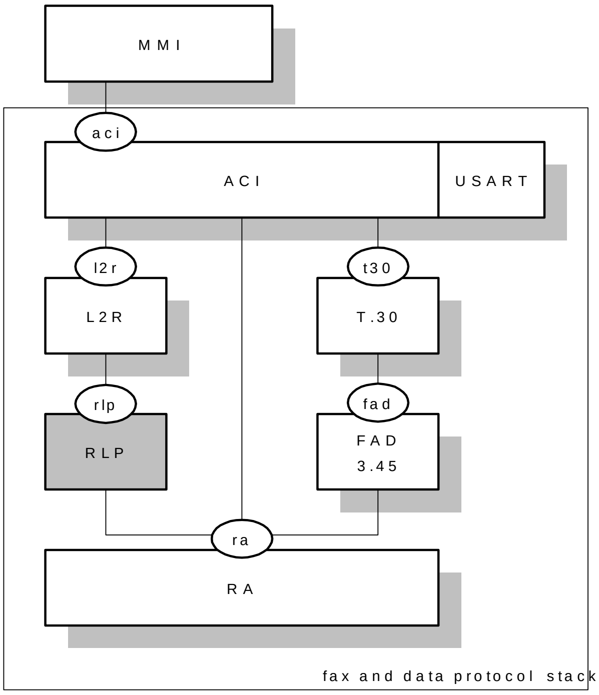

Figure 2-1: Architecture of the fax and data protocol stack

The information units passed via the SAPs are called primitives and consists of an operation code and several parameters. See the Users Guide for details.

The entities of the fax and data protocol stack are:

2.1 RA - Rate Adaptation

This entity performs an adaptation between an asynchronous or synchronous data stream with several bit rates on to the fixed bit rate used at the TCH. This is performed by the rate adaptation functions RA1' and RA0 described in GSM 04.21.

2.2 RLP - Radio Link Protocol

This entity provides a Layer 2 protocol for asynchronous reliable data transfer as specified in GSM 04.22. It includes error correction, sequence numbers and a mechanism for repeating corrupted and lost messages.

2.3 L2R - Layer 2 Relay Functionality

The L2R provides relay functions in order to adapt the character-oriented data received from the TE via USART to the bit-oriented RLP protocol.

2.4 FAD 03.45 - Fax Adaptation Protocol

The fax adaptation protocol, as specified in GSM 03.45, provides synchronisation with the BCS and MSG modems of the peer entity. It uses byte repetition in conjunction with a voting algorithm to handle corruption on the TCH data stream. The non-transparent fax protocol in accordance with GSM 03.46 is not part of this implementation.

The fax adapter enables T.30 to send BCS at 300 BPS and T.4 MSG in 2400, 4800, 7200 and 9600 BPS.

2.5 T.30 - Fax Protocol Entity

The protocol uses binary coded signals packed in HDLC frames to set up and release a connection in the message phase of the FAX transmission. This entity is specified in the ITU-T.30. The main tasks of this unit are:

- Building the HDLC frames with CRC.
- Performing bit stuffing/de-stuffing.
- Executing a sequence of 5 phases: 1.) set up, 2.) pre-message procedures, 3.) transmission/reception, 4.) post message procedures, 5.) waiting for call release.

2.6 ACI - AT Command Interpreter

The ACI is specified in GSM 07.07. It is responsible for call establishment via the GSM voice protocol stack and terminal adaptation for asynchronous transparent character-oriented data transmission. The ACI is able to receive AT commands and send the replies over the USART driver to a remote PC. This makes it possible to control the voice and data protocol stack from a remote application running on a PC. The ACI also provides a unique interface for an internal MMI in the MS.

2.7 USART - Universal Synchronous Asynchronous Receiver Transmitter Driver

The USART is a hardware component that facilitates a connection between the mobile station and terminal equipment (e.g. a PC). This interface uses some of the circuits described in V.24.

The data exchange provided by this unit is serial and asynchronous (synchronous communication is not in the scope of this document). A driver that uses interrupts to manage a circular buffer for the sending and receiving direction is necessary in order to use this component in the F&D. The driver has to be able to perform flow control.

3 Parameters

```
/* array declarations */
DECLARATION ( A_PIN_1234 )
DECLARATION ( A_PIN_4321 )
DECLARATION ( A_PIN_12534 )
DECLARATION ( A_CLG_NUM )
DECLARATION (IMSI_E_PLUS)
DECLARATION (IMSI_FIELD_DATA)
DECLARATION ( A_CLD_NUM )
DECLARATION ( A_CLG_EMERG112 )
DECLARATION ( A_CLG_EMERG000 )
DECLARATION ( A_CLG_EMERG08 )
DECLARATION ( A_CLG_EMERG110 )
DECLARATION ( A_CLG_EMERG118 )
DECLARATION ( A_CLG_EMERG119 )
DECLARATION ( A_CLG_EMERG911 )
DECLARATION ( A_CLG_EMERG999 )
DECLARATION ( A_CLG_NOEMERG999099 )
DECLARATION ( A_CLD_EMERG112 )
DECLARATION ( A_CLD_EMERG000 )
DECLARATION ( A_CLD_EMERG08 )
DECLARATION ( A_CLD_EMERG110 )
DECLARATION ( A_CLD_EMERG118 )
DECLARATION ( A_CLD_EMERG119 )
DECLARATION ( A_CLD_EMERG911 )
DECLARATION ( A_CLD_EMERG999 )
DECLARATION ( A_CLD_NOEMERG999099 )
DECLARATION ( A_CLD_NUM_INT )
DECLARATION ( A_FAC_AOC )
DECLARATION (A_FAC_BUILD_MPTY )
DECLARATION (A_FAC_BUILD_MPTY_CONTENT )
DECLARATION (A_FAC_SPLIT_MPTY )
DECLARATION (A_FAC_SPLIT_MPTY_CONTENT )
DECLARATION (A_FAC_HOLD_MPTY )
DECLARATION (A_FAC_HOLD_MPTY_CONTENT )
DECLARATION (A_FAC_HOLD_MPTY_2 )
DECLARATION (A_FAC_HOLD_MPTY_2_CONTENT )
DECLARATION (A_FAC_RETRIEVE_MPTY )
DECLARATION (A_FAC_RETRIEVE_MPTY_CONTENT )
DECLARATION (A_FAC_ECT )
DECLARATION (A_FAC_ECT_2 )
DECLARATION (A_FAC_ECT_CONTENT )
DECLARATION (A_FAC_ECT_CONTENT_2 )
DECLARATION (A_FAC_CCBS )
DECLARATION (A_FAC_CCBS_CONTENT )
DECLARATION (A_FAC_NTFY_CCBS )
DECLARATION (A_FAC_NTFY_CCBS_CONTENT )
DECLARATION (A_FAC_EMPTY )
DECLARATION (A_FAC_BUILD_MPTY_RES )
DECLARATION (A_FAC_BUILD_MPTY_RES_CONTENT)
DECLARATION (A_FAC_SPLIT_MPTY_RES )
DECLARATION (A_FAC_SPLIT_MPTY_RES_CONTENT )
DECLARATION (A_FAC_HOLD_MPTY_RES )
DECLARATION (A_FAC_HOLD_MPTY_RES_CONTENT )
DECLARATION (A_FAC_RETRIEVE_MPTY_RES )
DECLARATION (A_FAC_RETRIEVE_MPTY_RES_CONTENT )
DECLARATION (A_FAC_ECT_RES )
DECLARATION (A_FAC_ECT_RES_CONTENT )
DECLARATION (A_FAC_ECT_REJ_RES )
DECLARATION (A_FAC_ECT_REJ_RES_CONTENT )
DECLARATION (A_FAC_CCBS_RES )
DECLARATION (A_FAC_CCBS_RES_CONTENT )
DECLARATION (A_FAC_CCBS_ERR )
DECLARATION (A_FAC_CCBS_ERR_CONTENT )
DECLARATION (A_EF_PLMNSEL )
DECLARATION (A_EF_PLMNSEL_DEL )
DECLARATION (A_EF_PLMNSEL_DEL_CMP )
DECLARATION (A_EF_PLMNSEL_OVR )
DECLARATION (A_EF_PLMNSEL_NEW )
DECLARATION (A_EF_PLMNSEL_INS_CMP )
DECLARATION (A_EF_PLMNSEL_INS_1_CMP )
DECLARATION (A_EF_PLMNSEL_NEW_CMP )
DECLARATION (A_EF_PLMNSEL_CHG_CMP )
DECLARATION (A_ECC_FIELD )
DECLARATION (A_ECC_FIELD_EMPTY )
DECLARATION (A_ELP_FIELD )
DECLARATION (A_LP_FIELD )
DECLARATION (A_LP_LAN_NOT_SUP )
DECLARATION (A_ELP_LAN_NOT_SUP )
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DECLARATION (A_AD_FIELD_CI_ENABLED )
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DECLARATION (A_ADN_REC )
DECLARATION (A_SMS_REC )
DECLARATION (A_RESP_DATA )
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DECLARATION (F_MNC_45F)
DECLARATION (F_MNC_01F)
DECLARATION (F_MNC_02F)
DECLARATION (F_MNC_55)
DECLARATION (F_RESP_OK)
DECLARATION (F_RESP_CBST)
DECLARATION (F_RESP_FCO)
DECLARATION (F_RESP_COPN)
DECLARATION (F_RESP_CONNECT)
DECLARATION (F_RESP_NO_CARRIER)
DECLARATION (F_RESP_TE0_CR_OK)
DECLARATION (F_RESP_A)
DECLARATION (F_RESP_T)
DECLARATION (F_RESP_E)
DECLARATION (F_RESP_0)
DECLARATION (F_AT_CF)
DECLARATION (F_AT_FBU_1)
DECLARATION (F_AT_H)
DECLARATION (F_AT_O)
DECLARATION (F_AT_UN1)
DECLARATION (F_AT_COPN)
DECLARATION (F_AT_REP)
DECLARATION (F_AT_CBST_NONTRA)
DECLARATION (F_AT_CBST_TRA)
DECLARATION (F_AT_CBST_CHECK)
DECLARATION (F_AT_D_DAT)
DECLARATION (F_AT_FCLASS_2)
DECLARATION (F_AT_FDT)
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DECLARATION (S_PLMN_262_01)
DECLARATION (S_PLMN_262_02)
DECLARATION (S_CLG_PARTY)
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DECLARATION (S_CLG_EMERG911)
DECLARATION (S_CLG_EMERG999)
DECLARATION (S_CLG_NOEMERG999099)
DECLARATION (S_CLD_PARTY)
DECLARATION (S_CLD_EMERG112)
DECLARATION (S_CLD_EMERG000)
DECLARATION (S_CLD_EMERG08)
DECLARATION (S_CLD_EMERG110)
DECLARATION (S_CLD_EMERG118)
DECLARATION (S_CLD_EMERG119)
DECLARATION (S_CLD_EMERG911)
DECLARATION (S_CLD_EMERG999)
DECLARATION (S_CLD_NOEMERG999099)
DECLARATION (S_CLD_PARTY_INT)
DECLARATION (S_CLG_PARTY_SUB)
DECLARATION (S_CLG_EMERG_SUB)
DECLARATION (S_CLD_PARTY_SUB)
DECLARATION (S_CLD_EMERG_SUB)
DECLARATION (S_BS_NOT_PRESENT)
DECLARATION (S_BS_VOICE)
DECLARATION (S_BS_AUX_VOICE)
DECLARATION (S_BS_EMERG)
DECLARATION (S_BS_FAX)
DECLARATION (S_BS_FAX_14400)
DECLARATION (S_BS_DAT_9600_ASY_NTRA)
DECLARATION (S_BS_DEF)
DECLARATION (S_BS_DAT_14400_ASY_BTP)
DECLARATION (S_BS_DAT_14400_ASY_TRA_V34)
DECLARATION (S_HDLC_DCS)
DECLARATION (S_HDLC_DIS)
DECLARATION (S_DCS)
DECLARATION (S_DIS)
DECLARATION (S_DTC)
DECLARATION (S_FAC_AOC)
DECLARATION (S_CHN_SPEECH)
DECLARATION (S_CHN_FULL_9600)
DECLARATION (S_HDLC_DIS_9600)
DECLARATION (S_DIS_9600)
DECLARATION (F_PLMN_LST)
DECLARATION (PLMN_LST_1)
DECLARATION (PLMN_LST_2)
DECLARATION (PLMN_LST_3)
DECLARATION (PLMN_LST_4)
DECLARATION (PLMN_LST_5)
DECLARATION (EMPTY_PLMN_LST)
DECLARATION (MCC_PLMN_LST_1)
DECLARATION (MCC_PLMN_LST_2)
DECLARATION (MCC_PLMN_LST_3)
DECLARATION (MCC_PLMN_LST_4)
DECLARATION (MCC_PLMN_LST_5)
DECLARATION (MCC_PLMN_LST_6)
DECLARATION (MNC_PLMN_LST_1)
DECLARATION (MNC_PLMN_LST_2)
DECLARATION (MNC_PLMN_LST_3)
DECLARATION (MNC_PLMN_LST_4)
DECLARATION (MNC_PLMN_LST_5)
DECLARATION (MNC_PLMN_LST_6)
DECLARATION (F_ICC)
DECLARATION (F_MCC_123)
DECLARATION (F_MCC_262)
DECLARATION (F_MCC_555)
DECLARATION (S_BS_DAT_default)
DECLARATION (S_NET_CTRL)
DECLARATION (S_CLASSM2)
DECLARATION (S_CLASSM3)
DECLARATION (S_MEAS_CAP)
DECLARATION (S_IMEI)
DECLARATION (S_IMSI)
DECLARATION (S_HOP_CHN)
```

/* Different kind of IMSI fields reported by the IMSI for testing the ME personalisation */

```
DECLARATION(IMSI_FIELD_NW_FAIL)
DECLARATION(IMSI_FIELD_NW_FAIL_DATA)
DECLARATION(IMSI_FIELD_NWSUB_FAIL)
DECLARATION(IMSI_FIELD_NWSUB_FAIL_DATA)
DECLARATION(IMSI_FIELD_NW_NS_OK)
DECLARATION(IMSI_FIELD_NW_NS_OK_DATA)
DECLARATION(IMSI_FIELD_SIM_FAIL)
DECLARATION(IMSI_FIELD_SIM_FAIL_DATA)
DECLARATION(IMSI_FIELD_SIM_OK)
DECLARATION(IMSI_FIELD_SIM_OK_DATA)
```

/* GID1 and GID2 fields used while doing SP and Corp type SIM locks */

```
DECLARATION(A_GID1_FAIL_FIELD)
DECLARATION(A_GID1_OK_FIELD)
DECLARATION(A_GID2_FAIL_FIELD)
DECLARATION(A_GID2_OK_FIELD)
```

/* Number definitions */

```
BYTE NUM_0 0
BYTE NUM_1 1
BYTE NUM_2 2
BYTE NUM_3 3
BYTE NUM_4 4
BYTE NUM_5 5
BYTE NUM_6 6
BYTE NUM_7 7
BYTE NUM_8 8
BYTE NUM_9 9
BYTE NUM_10 10
BYTE NUM_11 11
BYTE NUM_12 12
BYTE NUM_18 18
BYTE NUM_20 20
BYTE NUM_27 27
BYTE NUM_30 30
BYTE NUM_5A 0x5A
BYTE NUM_50 50

BYTE NUM_DEC_90 90


BYTE NUM_512 512

BYTE RXLEV 0x0A
BYTE BSIC 0x03F
BYTE DSC 0x08
BYTE TXLEV 0x10
BYTE TN 0x05
BYTE RLT 0x02
BYTE TAV 0x30
BYTE RXLEV_F 0x0A
BYTE RXLEV_S 0x0A
BYTE RXQUAL_F 0x05
BYTE RXQUAL_S 0x05
BYTE CBA 0x01
BYTE CBQ 0x01
BYTE NO_NCELLS 0x06
BYTE MAX_DATAS 0xFF

BYTE MAX_CCP_LEN 14


BYTE NMO 0x02
BYTE NET_CTRL 0x03
BYTE RAC 0x05
SHORT C31 0x08
SHORT C32 0x09


BYTE BS_PA_MFRMS 0x09
BYTE T3212 0x06

BYTE NO_CREQ_MAX 0x0A
BYTE REEST_FLAG 0x01
BYTE TXPWR_MAX 0x0A
BYTE RXLEV_MIN 0x0B
SHORT REL_CS 0x00
```

```
BYTE CIPH_STAT 0x01
BYTE HSN 0x10
BYTE DTX_STAT 0x01


BYTE NUM_40 0x40
BYTE NUM_90 0x90
BYTE NUM_92 0x92
BYTE NUM_98 0x98
BYTE NUM_6F 0x6F
BYTE NUM_FF 0xFF


SHORT NUM_9600 9600
SHORT NUM_4800 4800
SHORT NUM_1000 1000

SHORT ARFCN 0x64
SHORT C1 0xF
SHORT C2 0xF
SHORT LAC 0x12


SHORT TMSI 0x64

LONG BITMASK_H 0X00
LONG BITMASK_L 0X2400
LONG BITMASK_DL  0X0005
LONG BITMASK_MM 0X3000
BYTE ENTITY 0X04
BYTE ENTITY_DL 0x02
BYTE ENTITY_RR 0x03
BYTE ENTITY_MM 0x04


BYTE MAX_CPHS_CSP 18
BYTE MAX_CPHS_OPNL 30
BYTE MAX_CPHS_OPNS 10
BYTE REC_NUM_0 0x00
BYTE REC_NUM_MAX 0xFF

SHORT SS_NO_ERROR 0x600



/* Key definitions */

BYTE KEY_0 48
BYTE KEY_1 49
BYTE KEY_2 50
BYTE KEY_3 51
BYTE KEY_4 52
BYTE KEY_5 53
BYTE KEY_6 54
BYTE KEY_7 55
BYTE KEY_8 56
BYTE KEY_9 57
BYTE KEY_A 65
BYTE KEY_B 66
BYTE KEY_C 67
BYTE KEY_D 68
BYTE KEY_STAR 42
BYTE KEY_HASH 35

/*Message:        OK
                  successful operation*/
STRING(M_OK, "OK" )

/*Message:        NO CARRIER
                  carrier lost*/
STRING(M_NO_CARRIER, "NO CARRIER" )

/*Message:        NO ANSWER*/
STRING(M_NO_ANSWER, "NO ANSWER" )

/*Message:        CONNECT
                  successful data call connection*/
STRING(M_CONNECT_9600, "CONNECT 9600" )
STRING(M_CONNECT, "CONNECT" )

/*Message:        ERROR
                  error result code*/
STRING(M_ERROR, "ERROR" )
/*Message:        BUSY
                  busy result code*/
STRING(M_BUSY, "BUSY" )
/*Message:        +CME
                  error result code*/
STRING(M_ERR_UNKNOWN, "+CME ERROR: unknown" )
STRING(M_ERR_PIN_REQ, "+CME ERROR: SIM PIN required" )
STRING(M_ERR_WRONG_PWD, "+CME ERROR: incorrect password" )
STRING(M_ERR_SIM_FATAL, "+CME ERROR: SIM not inserted" )
STRING(M_ERR_SIM_INV, "+CME ERROR: SIM wrong" )
STRING(M_ERR_SIM_BLCK, "+CME ERROR: SIM PUK required" )
STRING(M_ERR_SIM_FAIL, "+CME ERROR: SIM failure" )
STRING(M_ERR_NO_NTW_SRV, "+CME ERROR: no network service" )
STRING(M_ERR_LIMITED_SRV, "+CME ERROR: network not allowed - emergency calls only" )
STRING(M_ERR_OPERATION, "+CME ERROR: operation not allowed" )
STRING(M_ERR_LOCK_PN_PIN_REQ, "+CME ERROR: Network lock - PIN required" )
STRING(M_ERR_LOCK_PN_PUK_REQ, "+CME ERROR: Network lock - PUK required" )
STRING(M_ERR_LOCK_PU_PIN_REQ, "+CME ERROR: Subnetwork lock - PIN required" )
STRING(M_ERR_LOCK_PU_PUK_REQ, "+CME ERROR: Subnetwork lock - PUK required" )
STRING(M_ERR_LOCK_PP_PIN_REQ, "+CME ERROR: Provider lock - PIN required" )
STRING(M_ERR_LOCK_PP_PUK_REQ, "+CME ERROR: Provider lock - PUK required" )

STRING(M_ERR_LOCK_PC_PIN_REQ, "+CME ERROR: Corporate lock - PIN required" )

STRING(M_ERR_LOCK_PC_PUK_REQ, "+CME ERROR: Corporate lock - PUK required" )

STRING(M_ERR_LOCK_PH_PIN_REQ, "+CME ERROR: PH-SIM PIN required" )


/*Command:        S
                  set S register*/
STRING(C_S0_1, "ATS0=1" )

STRING(C_S0_3, "ATS0=3" )


/*Command:        +CFUN
                  set phone functionality*/
STRING(C_PLUS_CFUN_FULL, "AT+CFUN=1 " )


/*Command:        +CEER
                  extended error report*/
STRING(C_PLUS_CEER, "AT+CEER " )


/*Command:        +CMEE
                  extended error report mode*/
STRING(C_PLUS_CMEE_VERB, "AT+CMEE=2 " )


/*Command:        Z
                  reset to defaults*/
STRING(C_Z, "ATZ " )
/*Command:        +CPAS
                  phone activity status*/
STRING(C_PLUS_CPAS, "AT+CPAS " )

/*Command:        +CPIN
                  enter PIN*/
STRING(C_PLUS_CPIN_1234, "AT+CPIN=\"1234\" " )
STRING(C_PLUS_CPIN_5678, "AT+CPIN=\"5678\" " )
STRING(C_PLUS_CPIN_123456, "AT+CPIN=\"123456\" " )
STRING(C_PLUS_CPIN_QUERY, "AT+CPIN? ")

/*Message:        +CPIN
                  enter PIN*/
STRING(M_PLUS_CPIN_PIN1, "+CPIN: SIM PIN" )


/*Command:        +CNUM
                  Request own MSISDN*/
STRING(C_PLUS_CNUM, "AT+CNUM" )
/*Message:        +CNUM
                  Request own MSISDN*/
STRING(M_PLUS_CNUM, "+CNUM: ,\"03039491447\",129" )
STRING(M_PLUS_CNUM2, "+CNUM: \"LINE2\",\"\",255" )

/*Command:        +CMOD
                  mode selection*/
STRING(C_PLUS_CMOD_FAX, "AT+CMOD=1 " )
STRING(C_PLUS_CMOD_ALT_DAT, "AT+CMOD=2 " )

/*Command:      +CCWA
                Call waiting indication*/
STRING(C_PLUS_CCWA_ON, "AT+CCWA=1 " )

/*Command:      D
                Dial a number*/
STRING(C_D_DAT, "ATDT(030)39094444" )
STRING(C_D_CHPIN, "ATD**04*1234*4321*4321#" )
STRING(C_D_CHPIN_FAIL, "ATD**04*1234*4321*2222#" )
STRING(C_D_VOICE, "ATD03039094444;" )
STRING(C_D_VOICE_INT_A, "ATD004903039094444;" )
STRING(C_D_VOICE_INT_B, "ATD+4903039094444;" )
STRING(C_D_EMERG112, "ATD112;" )
STRING(C_D_EMERG000, "ATD000;" )
STRING(C_D_EMERG08, "ATD08;" )
STRING(C_D_EMERG110, "ATD110;" )
STRING(C_D_EMERG118, "ATD118;" )
STRING(C_D_EMERG119, "ATD119;" )
STRING(C_D_EMERG911, "ATD911;" )
STRING(C_D_EMERG999, "ATD999;" )
STRING(C_D_NOEMERG999099, "ATD999099;" )
STRING(C_D_MDF, "ATD" )
STRING(C_D_VOICE_CLIR, "ATD*31#03039094444; " )
STRING(C_D_SS_CLIR, "ATD*31#03039094444; " )
STRING(C_D_SS_IMEI, "ATD*#06#;" )
STRING(M_IMEI, "13579024681122278" )
STRING(C_D_USSD, "ATD*100#;" )

/*Command:      H
                Hang up call*/
STRING(C_H, "ATH0" )

/*Command:      +CHUP
                Hang up call*/
STRING(C_PLUS_CHUP, "AT+CHUP" )

/*Command:      A
                accept call*/
STRING(C_A, "ATA" )

/* Command:  AT , just to check a living AT Interpreter */
STRING(C_AT, "AT" )

/*Command:      +CBST
                Set bearer services*/
STRING(C_PLUS_CBST_CURR, "AT+CBST?" )
STRING(C_PLUS_CBST_9600_ASY_TRA, "AT+CBST=71,0,0" )
STRING(C_PLUS_CBST_9600_ASY_NTRA, "AT+CBST=71,0,1" )
STRING(C_PLUS_CBST_14400_ASY_BTP, "AT+CBST=43,0,2" )

STRING(C_PLUS_CBST_14400_ASY_TRA_V34, "AT+CBST=14,0,0" )


/*Command:      +COPS
                operator selection*/
```

```
STRING(C_PLUS_COPS_DREG, "AT+COPS=2 " )
STRING(C_PLUS_COPS_REG, "AT+COPS=0,0 " )
STRING(C_PLUS_COPS_QUE, "AT+COPS? " )
STRING(C_PLUS_COPS_TST, "AT+COPS=? " )
STRING(C_PLUS_COPS_MAN_LNG, "AT+COPS=1,0,\"Vodafon D2\"" )

STRING(C_PLUS_COPS_MAN_SHRT, "AT+COPS=1,1,\"Voda D2\"" )

STRING(C_PLUS_COPS_MAN_NUM, "AT+COPS=1,2,\"26202\"" )

/*
Message:        +COPS
                operator selection
*/
STRING(M_PLUS_COPS_LST, "+COPS: (1,\"T-Mobile D\",\"TMO D\",\"26201\"),(1,\"Vodafone D2\",\"Voda D2\",\"26202\"),(1,\"E-Plus\",\"E-Plus\",\"26203\")" )

/*message:        +COPS
                operator selection*/
STRING(M_PLUS_COPS_AUT_LNG_26201, "+COPS: 0,0,\"T-Mobile D\"" )

/*Command:        +CLCK
                facility lock*/
STRING(C_PLUS_CLCK_FD_ENA, "AT+CLCK=\"FD\",1,\"12534\"" )
STRING(C_PLUS_CLCK_FD_ENA2, "AT+CLCK=\"FD\",1" )
STRING(C_PLUS_CLCK_FD_DIS, "AT+CLCK=\"FD\",0,\"1234\"" )

STRING(C_PLUS_CLCK_FD_QUERY, "AT+CLCK=\"FD\",2" )


/*Message:        +CLCK
                faclility lock*/
STRING(M_PLUS_CLCK_FD_ENA, "+CLCK: 1" )
STRING(M_PLUS_CLCK_FD_DIS, "+CLCK: 0" )


/*Command:        +CLCK
                facility lock, ME personalisation*/
/* Network */
STRING(C_PLUS_CLCK_PN_ENA, "AT+CLCK=\"PN\",1,\"1234\"" )
STRING(C_PLUS_CLCK_PN_DIS, "AT+CLCK=\"PN\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PN_ENAERR, "AT+CLCK=\"PN\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PN_DISERR, "AT+CLCK=\"PN\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PN_QUERY, "AT+CLCK=\"PN\",2" )

/* Network subnet */
STRING(C_PLUS_CLCK_PU_ENA, "AT+CLCK=\"PU\",1,\"1234\"" )
STRING(C_PLUS_CLCK_PU_DIS, "AT+CLCK=\"PU\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PU_ENAERR, "AT+CLCK=\"PU\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PU_DISERR, "AT+CLCK=\"PU\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PU_QUERY, "AT+CLCK=\"PU\",2" )


/* service provider */
STRING(C_PLUS_CLCK_PP_ENA, "AT+CLCK=\"PP\",1,\"1234\"" )

STRING(C_PLUS_CLCK_PP_DIS, "AT+CLCK=\"PP\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PP_ENAERR, "AT+CLCK=\"PP\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PP_DISERR, "AT+CLCK=\"PP\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PP_QUERY, "AT+CLCK=\"PP\",2" )


/* corporate */
STRING(C_PLUS_CLCK_PC_ENA, "AT+CLCK=\"PC\",1,\"1234\"" )

STRING(C_PLUS_CLCK_PC_DIS, "AT+CLCK=\"PC\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PC_ENAERR, "AT+CLCK=\"PC\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PC_DISERR, "AT+CLCK=\"PC\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PC_QUERY, "AT+CLCK=\"PC\",2" )


/* SIM */
STRING(C_PLUS_CLCK_PS_ENA, "AT+CLCK=\"PS\",1,\"1234\"" )

STRING(C_PLUS_CLCK_PS_DIS, "AT+CLCK=\"PS\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PS_ENAERR, "AT+CLCK=\"PS\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PS_DISERR, "AT+CLCK=\"PS\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PS_QUERY, "AT+CLCK=\"PS\",2" )


/* First SIM */
STRING(C_PLUS_CLCK_PF_ENA, "AT+CLCK=\"PF\",1,\"1234\"" )

STRING(C_PLUS_CLCK_PF_DIS, "AT+CLCK=\"PF\",0,\"1234\"" )
STRING(C_PLUS_CLCK_PF_ENAERR, "AT+CLCK=\"PF\",1,\"5678\"" )
STRING(C_PLUS_CLCK_PF_DISERR, "AT+CLCK=\"PF\",0,\"5678\"" )
STRING(C_PLUS_CLCK_PF_QUERY, "AT+CLCK=\"PF\",2" )


/*Message:        +CLCK
                  faclility lock, ME personalisation*/
/* Answer message is for all CLCK query commands the same! */
STRING(M_PLUS_CLCK_ENA, "+CLCK: 1" )
STRING(M_PLUS_CLCK_DIS, "+CLCK: 0" )


/*Command:        %NRG
                  network registration*/
STRING(C_PLUS_NRG_FULL_AUTO, "AT%NRG=0,0 " )
STRING(C_PLUS_NRG_FULL_MAN, "AT%NRG=1,0,1,\"TMO D\" " )

STRING(C_PLUS_NRG_LIM, "AT%NRG=,1 " )

STRING(C_PLUS_NRG_NO, "AT%NRG=,2 " )

STRING(C_PLUS_NRG_SET_AUTO, "AT%NRG=0,3 " )

STRING(C_PLUS_NRG_SET_MAN, "AT%NRG=1,3 " )

STRING(C_PLUS_NRG_QUERY, "AT%NRG? " )


/*Message:        %NRG
                  network registration*/
STRING(M_PLUS_NRG_AUTO_FULL_LONG_D1, "%NRG: 0,0,0,0,\"T-Mobile D\"" )
STRING(M_PLUS_NRG_MAN_FULL_SHORT_D1, "%NRG: 1,0,1,0,\"TMO D\"" )

STRING(M_PLUS_NRG_AUTO_LIM_SHORT_NONE, "%NRG: 0,1,,1" )

STRING(M_PLUS_NRG_MAN_LIM_SHORT_NONE, "%NRG: 1,1,,1" )

STRING(M_PLUS_NRG_AUTO_NO_LONG_NONE, "%NRG: 0,2,,2" )
```

```
/*Command:        +COLP
                  Calling line presentation mode*/
STRING(C_PLUS_COLP_ON, "AT+COLP=1 " )

/*Command:        +CLIR
                  Calling line restriction mode*/
STRING(C_PLUS_CLIR_SUP, "AT+CLIR=2 " )

/*Command:        +CHLD
                  Call on hold*/
STRING(C_PLUS_CHLD_0, "AT+CHLD=0 " )
STRING(C_PLUS_CHLD_1, "AT+CHLD=1 " )
STRING(C_PLUS_CHLD_2, "AT+CHLD=2 " )
STRING(C_PLUS_CHLD_21, "AT+CHLD=21 " )
STRING(C_PLUS_CHLD_12, "AT+CHLD=12 " )
STRING(C_PLUS_CHLD_3, "AT+CHLD=3 " )
STRING(C_PLUS_CHLD_4, "AT+CHLD=4 " )
STRING(C_PLUS_CHLD_5, "AT+CHLD=5 " )

/*Command:        +CSVM
                  Set a Voice Mail Number*/
STRING(C_PLUS_CSVM_ENABLE, "AT+CSVM=1,\"03039491478\",145 " )
STRING(M_PLUS_CSVM_ENABLE, "+CSVM: 1,\"03039491478\",145" )

STRING(C_PLUS_CSVM_Disable, "AT+CSVM=0 " )
STRING(M_PLUS_CSVM_Disable, "+CSVM: 0,\"\",145" )

STRING(C_PLUS_CSVM_Q, "AT+CSVM? " )
STRING(M_PLUS_CSVM_Q, "+CSVM: 0,\"030390943367\",129" )

STRING(C_PLUS_CSVM_T, "AT+CSVM=? " )
STRING(M_PLUS_CSVM_T, "+CSVM: (0,1),(129,145,161)" )

/*Command:        +CLAE
                  Language Event*/
STRING(C_PLUS_CLAE_T, "AT+CLAE=?" )
STRING(M_PLUS_CLAE_T, "+CLAE: (0-1)" )
STRING(C_PLUS_CLAE_Ena, "AT+CLAE=1" )
STRING(C_PLUS_CLAE_Dis, "AT+CLAE=0" )
STRING(C_PLUS_CLAE_Q, "AT+CLAE?" )
STRING(M_PLUS_CLAE_Q, "+CLAE: 1" )
STRING(M_PLUS_CLAE_Dis, "+CLAE: 0" )

/*Command:        +CLAN
                  Set a language*/

STRING(C_PLUS_CLAN_T, "AT+CLAN=?" )
STRING(M_PLUS_CLAN_T, "+CLAN: en,fr,de,it,es,pt,no,el,pl,in,cs,zh,ar" )
STRING(C_PLUS_CLAN_S, "AT+CLAN=\"de\"" )
STRING(C_PLUS_CLAN_AUTO, "AT+CLAN=\"au\"" )
STRING(C_PLUS_CLAN_Q, "AT+CLAN?" )
STRING(M_PLUS_CLAN_Q, "+CLAN: de" )
STRING(M_PLUS_CLAN_ar, "+CLAN: ar" )
STRING(M_PLUS_CLAN_en, "+CLAN: en" )
STRING(M_PLUS_CLAV_rst, "+CLAV: de" )
```

```
/*Command:           +VTS
                     send DTMF*/
STRING(C_PLUS_VTS_1, "AT+VTS=1,0" )
STRING(C_PLUS_VTS_2, "AT+VTS=2" )
STRING(C_PLUS_VTS_A, "AT+VTS=a" )

STRING(C_PLUS_VTS_STAR, "AT+VTS=*" )

STRING(C_PLUS_VTS_HASH, "AT+VTS=#" )

STRING(C_PLUS_VTS_C, "AT+VTS=C" )
STRING(C_PLUS_VTS_D, "AT+VTS=D" )
STRING(C_PLUS_VTS_12, "AT+VTS=12" )


/*message:           +COLP
                     calling line presentation*/
STRING(M_PLUS_COLP_NUM, "+COLP: \"03039094223\",129" )
STRING(M_PLUS_COLP_EMERG112, "+COLP: \"112\",129" )
STRING(M_PLUS_COLP_EMERG000, "+COLP: \"000\",129" )
STRING(M_PLUS_COLP_EMERG08, "+COLP: \"08\",129" )
STRING(M_PLUS_COLP_EMERG110, "+COLP: \"110\",129" )
STRING(M_PLUS_COLP_EMERG118, "+COLP: \"118\",129" )
STRING(M_PLUS_COLP_EMERG119, "+COLP: \"119\",129" )
STRING(M_PLUS_COLP_EMERG911, "+COLP: \"911\",129" )
STRING(M_PLUS_COLP_EMERG999, "+COLP: \"999\",129" )
STRING(M_PLUS_COLP_NOEMERG000, "+COLP: \"000\",129,,,\"Heier, Max\"" )
STRING(M_PLUS_COLP_NOEMERG119, "+COLP: \"119\",129,,,\"Heier, Max\"" )
STRING(M_PLUS_COLP_NOEMERG911, "+COLP: \"911\",129,,,\"Heier, Max\"" )
STRING(M_PLUS_COLP_NOEMERG999099, "+COLP: \"999099\",129" )

STRING(M_PLUS_COLP_NUM_2, "+COLP: \"03039094444\",129" )

/*message:           +CCWA
                     call waiting presentation*/
STRING(M_PLUS_CCWA, "+CCWA: \"03039094223\",129,1,,0" )


/*message:           %SIMINS
                     SIM inserted*/
STRING(M_PERCENT_SIMINS_ERR_11, "%SIMINS: 11" )

/*message:           %SIMREM
                     SIM removed*/
STRING(M_PERCENT_SIMREM_ERR_0, "%SIMREM: 0" )

/*message:           +CREG
                     network registration*/
STRING(M_PLUS_CREG_NO, "+CREG: 0" )
STRING(M_PLUS_CREG_SEARCH, "+CREG: 2" )
STRING(M_PLUS_CREG_SET, "AT+CREG=1" )

/*Command:           +CSNS
                     single numbering scheme*/
STRING(C_PLUS_CSNS_VAF_V, "AT+CSNS=5 " )
STRING(C_PLUS_CSNS_VFD, "AT+CSNS=7 " )

STRING(C_PLUS_CSNS_QUERY, "AT+CSNS? " )
```

```
/*Message:        +CSNS
                  single numbering scheme*/
STRING(M_PLUS_CSNS_0, "+CSNS: 0" )
STRING(M_PLUS_CSNS_5, "+CSNS: 5" )


/*Command:        +COPN
                  read operator names*/
STRING(C_PLUS_COPN, "AT+COPN" )

/*Command:        +CPOL
                  Preferred operator list*/
STRING(C_PLUS_CPOL_FRMT_LONG, "AT+CPOL=,0" )
STRING(C_PLUS_CPOL_FRMT_SHRT, "AT+CPOL=,1" )
STRING(C_PLUS_CPOL_FRMT_NUM, "AT+CPOL=,2" )
STRING(C_PLUS_CPOL_Q, "AT+CPOL?" )
STRING(C_PLUS_CPOL_T, "AT+CPOL=?" )
STRING(C_PLUS_CPOL_DEL_1, "AT+CPOL=1" )
STRING(C_PLUS_CPOL_DEL_2, "AT+CPOL=2" )
STRING(C_PLUS_CPOL_OVR_3, "AT+CPOL=5,2,\"28401\"" )
STRING(C_PLUS_CPOL_NEW_3, "AT+CPOL=,2,\"28401\"" )
STRING(C_PLUS_CPOL_INS_3, "AT+CPOL=3,2,\"28401\"" )
STRING(C_PLUS_CPOL_INS_1, "AT+CPOL=1,2,\"28401\"" )
STRING(C_PLUS_CPOL_CHG, "AT+CPOL=1" )

/*Message:        +CPOL
                  Preferred operator list*/
STRING(M_PLUS_CPOL_T, "+CPOL: (1-9),(0-2)" )
STRING(M_PLUS_CPOL_PLMN1_NUM, "+CPOL: 2,2,\"26201\"" )
STRING(M_PLUS_CPOL_PLMN1_LNG, "+CPOL: 2,0,\"T-Mobile D\"" )
STRING(M_PLUS_CPOL_PLMN1_SHRT, "+CPOL: 2,1,\"TMO D\"" )
STRING(M_PLUS_CPOL_PLMN1_CMP, "+CPOL: 1,0,\"T-Mobile D\"" )
STRING(M_PLUS_CPOL_PLMN1_CHG, "+CPOL: 5,0,\"T-Mobile D\"" )
STRING(M_PLUS_CPOL_PLMN1_INS, "+CPOL: 2,0,\"T-Mobile D\"" )
STRING(M_PLUS_CPOL_PLMN2_NUM, "+CPOL: 3,2,\"26202\"" )
STRING(M_PLUS_CPOL_PLMN2_LNG, "+CPOL: 3,0,\"Vodafone D2\"" )
STRING(M_PLUS_CPOL_PLMN2_SHRT, "+CPOL: 3,1,\"Voda D2\"" )
STRING(M_PLUS_CPOL_PLMN2_CMP, "+CPOL: 2,0,\"Vodafone D2\"" )
STRING(M_PLUS_CPOL_PLMN2_DLT, "+CPOL: 1,0,\"Vodafone D2\"" )
STRING(M_PLUS_CPOL_PLMN2_INS, "+CPOL: 3,0,\"Vodafone D2\"" )
STRING(M_PLUS_CPOL_PLMN3_NUM, "+CPOL: 5,2,\"26203\"" )
STRING(M_PLUS_CPOL_PLMN3_LNG, "+CPOL: 5,0,\"E-Plus\"" )
STRING(M_PLUS_CPOL_PLMN3_SHRT, "+CPOL: 5,1,\"E-Plus\"" )
STRING(M_PLUS_CPOL_PLMN3_CMP, "+CPOL: 3,0,\"E-Plus\"" )
STRING(M_PLUS_CPOL_PLMN3_DLT, "+CPOL: 2,0,\"E-Plus\"" )
STRING(M_PLUS_CPOL_PLMN3_INS, "+CPOL: 4,0,\"E-Plus\"" )
STRING(M_PLUS_CPOL_PLMN4_NUM, "+CPOL: 6,2,\"26207\"" )
STRING(M_PLUS_CPOL_PLMN4_LNG, "+CPOL: 6,0,\"o2 - de\"" )
STRING(M_PLUS_CPOL_PLMN4_SHRT, "+CPOL: 6,1,\"o2 - de\"" )
STRING(M_PLUS_CPOL_PLMN4_CMP, "+CPOL: 4,0,\"o2 - de\"" )
STRING(M_PLUS_CPOL_PLMN4_DLT, "+CPOL: 3,0,\"o2 - de\"" )
STRING(M_PLUS_CPOL_PLMN4_INS, "+CPOL: 5,0,\"o2 - de\"" )
STRING(M_PLUS_CPOL_PLMN5_NUM, "+CPOL: 8,2,\"23433\"" )
STRING(M_PLUS_CPOL_PLMN5_LNG, "+CPOL: 8,0,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN5_SHRT, "+CPOL: 8,1,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN5_CMP, "+CPOL: 5,0,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN5_DLT, "+CPOL: 4,0,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN5_INS, "+CPOL: 6,0,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN5_CHG, "+CPOL: 1,0,\"ORANGE\"" )
STRING(M_PLUS_CPOL_PLMN_OVR_LNG, "+CPOL: 5,0,\"M-TEL GSM BG\"" )
STRING(M_PLUS_CPOL_PLMN_OVR_NUM, "+CPOL: 5,2,\"28401\"" )
STRING(M_PLUS_CPOL_PLMN_NEW_LNG, "+CPOL: 1,0,\"M-TEL GSM BG\"" )
STRING(M_PLUS_CPOL_PLMN_NEW_NUM, "+CPOL: 1,2,\"28401\"" )
STRING(M_PLUS_CPOL_PLMN_NEW_CMP, "+CPOL: 6,0,\"M-TEL GSM BG\"" )
STRING(M_PLUS_CPOL_PLMN_INS_LNG, "+CPOL: 3,0,\"M-TEL GSM BG\"" )
STRING(M_PLUS_CPOL_PLMN_INS_1_LNG, "+CPOL: 1,0,\"M-TEL GSM BG\"" )

/*Message:        +CRSM
                  restricted SIM access*/
STRING(C_PLUS_CRSM_EFecc, "AT+CRSM=176,28599,0,0,12" )
STRING(M_PLUS_CRSM_EFecc, "+CRSM: 144,0,11F2FF99F9FF214365FFFFFF" )
STRING(C_PLUS_CRSM_EFadn, "AT+CRSM=178,28474,1,5,20" )
STRING(M_PLUS_CRSM_EFadn, "+CRSM: 144,0,0123456789ABCDEF0123456789ABCDEF01234567" )
STRING(C_PLUS_CRSM_EFacm, "AT+CRSM=214,28473,0,0,3,123456" )
STRING(M_PLUS_CRSM_EFacm, "+CRSM: 144,0" )
STRING(C_PLUS_CRSM_EFsms, "AT+CRSM=220,28476,1,5,10,12345678901234567890" )
STRING(M_PLUS_CRSM_EFsms, "+CRSM: 144,0" )
STRING(C_PLUS_CRSM_GetRes, "AT+CRSM=192,28475" )
STRING(M_PLUS_CRSM_GetRes, "+CRSM: 144,0,12345678901234567890" )
STRING(C_PLUS_CRSM_Stat, "AT+CRSM=242" )
STRING(M_PLUS_CRSM_Stat, "+CRSM: 146,144" )
STRING(M_PLUS_CRSM_PIN, "+CRSM: 152,4" )
STRING(M_PLUS_CRSM_FATAL, "+CRSM: 111,0" )
STRING(M_PLUS_CRSM_INV, "+CRSM: 152,64" )

/*message:        RING
                  alerting*/
STRING(M_RING, "RING" )

/*Command:        %CPRI
                  ciphering indication set command*/
STRING(C_PERCENT_CPRI_S1, "AT%CPRI=1" )

/*Command:        %CPRI
                  ciphering indication set command*/
STRING(C_PERCENT_CPRI_S2, "AT%CPRI=0" )

/*Command:        %CPRI
                  ciphering indication query command*/
STRING(C_PERCENT_CPRI_Q1, "AT%CPRI?" )

/*Message:        %CPRI */
STRING(M_PERCENT_CPRI_Q1, "%CPRI: 2" )
STRING(C_PERCENT_CPRI_T1, "AT%CPRI=?" )
STRING(M_PERCENT_CPRI_T1, "%CPRI: (0,1)" )
STRING(M_PERCENT_CPRI_Q2, "%CPRI: 1" )
STRING(M_PERCENT_CPRI_U1, "%CPRI: 1,2" )

/*Command:        %CCBS
                  Call completion to busy subscriber*/
STRING(C_PERCENT_CCBS_ENA, "AT%CCBS=1" )
```

```
/*Command:       %ALS
                 Alternate Line Service*/
STRING(C_PERCENT_ALS_QUERY, "AT%ALS?" )
STRING(C_PERCENT_ALS_T1, "AT%ALS=?" )
STRING(C_PERCENT_ALS_ON, "AT%ALS=1" )
STRING(C_PERCENT_ALS_OFF, "AT%ALS=0" )

STRING(M_PERCENT_ALS_T1, "%ALS: (0,1)" )
STRING(M_PERCENT_ALS_ON, "%ALS: 1" )
STRING(M_PERCENT_ALS_OFF, "%ALS: 0" )


/*Command:       %CPI

                 Call progress information

*/
STRING(C_PERCENT_CPI_ON, "AT%CPI=1" )

STRING(C_PERCENT_CUNS_ON, "AT%CUNS=1" )
/*
Message:         %CPI
                 Call progress information
*/
STRING(M_CPI_ALRT, "%CPI: 1,2,1,0" )
STRING(M_CPI_SYNC, "%CPI: 1,4,1,1" )
STRING(M_CPI_CONN, "%CPI: 1,6,1,1" )


/*Command:       +CPBS

                 select phonebook memory storage*/
STRING(C_PLUS_CPBS_LD, "AT+CPBS=\"LD\"" )
/*Command:       +CPBR

                 read phonebook entry*/
STRING(C_PLUS_CPBR, "AT+CPBR=1,13" )


/*message:       %CCBS
                 CCBS indications*/
STRING(M_PERCENT_CCBS_PSSBL, "%CCBS: 1" )
STRING(M_PERCENT_CCBS_PSSBL_TMO, "%CCBS: 0" )
STRING(M_PERCENT_CCBS_REG_V, "%CCBS: 2,1,\"493039094223\",145,,,1" )
STRING(M_PERCENT_CCBS_RECALL, "%CCBS: 3,1,\"493039094444\",145,,,1,3" )
STRING(M_PERCENT_CCBS_RCL_TMO, "%CCBS: 4" )

/* Command:      +CMUX
                 set multiplexer */
STRING(C_PLUS_CMUX, "AT+CMUX=1 " )


/*  Engineering mode – AT-CMD */

/* Command:      %EM
                 get infrastructure data serving cell  */
STRING(C_PERCENT_EM_QUERY_1, "AT%EM=2,1 " )
```

```
/*Message:         %EM
                   get infrastructure data serving cell */
STRING(M_PERCENT_EM_1, "%EM: 100,15,15,10,63,8,16,5,2,48,10,10,5,5,18,1,1" )


/*Command:         %EM
                   get infrastructure data serving cell GPRS*/
STRING(C_PERCENT_EM_QUERY_2, "AT%EM=2,2 " )

/*Message:         %EM
                   get infrastructure data serving cell GPRS */
STRING(M_PERCENT_EM_2, "%EM: 1,2,3,3,4,5,6,7,8,9" )


/*Command:         %EM
                   get infrastructure data neighbour cell*/
STRING(C_PERCENT_EM_QUERY_3, "AT%EM=2,3 " )

/*Message:         %EM
                   get infrastructure data neighbour cell*/
STRING(M_PERCENT_EM_3_1, "%EM: 6" )
/*  arfcn_nc */
STRING(M_PERCENT_EM_3_2, "1,2,3,4,5,6" )
/*  c1_nc */
STRING(M_PERCENT_EM_3_3, "1,2,3,4,5,6" )
/*  c2_nc */
STRING(M_PERCENT_EM_3_4, "1,2,3,4,5,6" )
/*  rxlev_nc */
STRING(M_PERCENT_EM_3_5, "1,2,3,4,5,6" )
/*  bsic_nc */
STRING(M_PERCENT_EM_3_6, "1,2,3,4,5,6" )
/*  cid_nc */
STRING(M_PERCENT_EM_3_7, "1,2,3,4,5,6" )
/*  lac_nc */
STRING(M_PERCENT_EM_3_8, "1,2,3,4,5,6" )
/*  offset_nc */
STRING(M_PERCENT_EM_3_9, "1,2,3,4,5,6" )
/*  alignmt_nc */
STRING(M_PERCENT_EM_3_10, "1,2,3,4,5,6" )
/*  cbq_nc */
STRING(M_PERCENT_EM_3_11, "1,2,3,4,5,6" )
/*  cba_nc */
```

```
STRING(M_PERCENT_EM_3_12, "1,2,3,4,5,6" )


/*Command:        %EM
                  get infrastructure data location and paging parameters */
STRING(C_PERCENT_EM_QUERY_4, "AT%EM=2,4 " )

/*Message:        %EM
                  get infrastructure data location and paging parameters*/
STRING(M_PERCENT_EM_4, "%EM: 9,6,1,2,3,4,5,6,100" )


/*Command:        %EM
                  get infrastructure data plmn parameters */
STRING(C_PERCENT_EM_QUERY_5, "AT%EM=2,5 " )

/*Message:        %EM
                  get infrastructure data plmn parameters */
STRING(M_PERCENT_EM_5, "%EM: 10,1,10,11,0" )


/*Command:        %EM
                  get infrastructure data ciph, hop and dtx parameters */
STRING(C_PERCENT_EM_QUERY_6, "AT%EM=2,6 " )

/*Message:        %EM
                  get infrastructure data ciph, hop and dtx parameters */
STRING(M_PERCENT_EM_6_1, "%EM: 1" )
STRING(M_PERCENT_EM_6_2, "1,2," )
STRING(M_PERCENT_EM_6_3, "16,1" )


/*Command:        %EM
                  get mobile data power parameters */
STRING(C_PERCENT_EM_QUERY_7, "AT%EM=2,7 " )

/*Message:        %EM
                  get infrastructure data power parameters */
STRING(M_PERCENT_EM_7_1, "%EM: 1,2,3,4,5,6,7,8,9,1,2,3" )
STRING(M_PERCENT_EM_7_2, "1,2,3,4,5,1,2,1,3,1,4,1,5,6,7,1,1,1" )
/*
Command:          %EM
                  get infrastructure data identity parameters
*/
STRING(C_PERCENT_EM_QUERY_8, "AT%EM=2,8 " )

/*Message:        %EM
                  get mobile data identity parameters */
STRING(M_PERCENT_EM_8_1, "%EM: 1,1,1,2,1,2,3,4,5,6,7,8,1,2,3,4,5,6,7,8" )
STRING(M_PERCENT_EM_8_2, "1,1,1,2,1,2,3,4,5,6,7,8,1,2,3,4,5,6,7,8" )
STRING(M_PERCENT_EM_8_3, "100" )


/*Command:        %EM
                  get mobile data sw version*/
STRING(C_PERCENT_EM_QUERY_9, "AT%EM=2,9 " )

/*Message:        %EM
                  get infrastructure data identity parameters */
STRING(M_PERCENT_EM_9_1, "%VER: ALR" )
STRING(M_PERCENT_EM_9_2, "%VER: DL" )
STRING(M_PERCENT_EM_9_3, "%VER: RR" )
STRING(M_PERCENT_EM_9_4, "%VER: MM" )
STRING(M_PERCENT_EM_9_5, "%VER: CC" )
STRING(M_PERCENT_EM_9_6, "%VER: SMS" )
STRING(M_PERCENT_EM_9_7, "%VER: SS" )
STRING(M_PERCENT_EM_9_8, "%VER: ACI" )
BYTE V_MMI 0xFF
BYTE V_SIM 0xFF
BYTE V_CC 0xFF
BYTE V_SS 0xFF
BYTE V_SMS 0xFF
BYTE V_MM 0xFF
BYTE V_RR 0xFF
BYTE V_DL 0xFF
BYTE V_L1 0xFF


/*Command:        %EMETS
                  set bitmask for event traceing - RR */
STRING(C_PERCENT_EMETS_2, "AT%EMETS=2,0,5" )
STRING(C_PERCENT_EMETS_3, "AT%EMETS=3,0,2400" )
STRING(C_PERCENT_EMETS_4, "AT%EMETS=4,0,3000" )

/*Command:        %EMET
                  read event tracing data*/
STRING(C_PERCENT_EMET_3, "AT%EMET=4" )
STRING(C_PERCENT_EMET_4, "AT%EMET=8" )
STRING(C_PERCENT_EMET_12, "AT%EMET=12" )
STRING(C_PERCENT_EMET_255, "AT%EMET=255" )

/*Message:        %EM
                  get infrastructure data identity parameters */
STRING(M_PERCENT_EMET_3, "%EMET END" )
STRING(M_PERCENT_EMET_4, "%EMET END" )

/* Message: +CUSD */
```

```
STRING(M_PLUS_CUSD_REQ, "+CUSD: 1,\"abcdefghijklmnopqrstuvwxyz\",165" )

/* CPHS functionality-----------------------------------------------------------------------*/

/* Command:        %CPHS
                   Common PCN Handset Specification */

STRING(C_PERCENT_CPHS_QUERY, "AT%CPHS?" )
STRING(C_PERCENT_CPHS_START, "AT%CPHS=1" )
STRING(C_PERCENT_CPHS_REFRESH, "AT%CPHS=2" )
STRING(C_PERCENT_CPHS_STOP, "AT%CPHS=0" )
STRING(C_PERCENT_CPHS_TEST, "AT%CPHS=?" )

STRING(M_PERCENT_CPHS_ON, "%CPHS: 1" )
STRING(M_PERCENT_CPHS_OFF, "%CPHS: 0" )
STRING(M_PERCENT_CPHS_TEST, "%CPHS: (0-2)" )

/* Command:        %CPOPN
                   Query Operater name */

STRING(C_PERCENT_CPOPN, "AT%CPOPN?" )

STRING(M_PERCENT_CPOPN_L, "%CPOPN: \"T-Mobil D\"" )
STRING(M_PERCENT_CPOPN_LS, "%CPOPN: \"T-Mobil D\",\"TMO D\"" )

/* Command:        %CPROAM
                   home contry roaming indication */

STRING(M_PERCENT_CPROAM, "%CPROAM: 1" )

/* Command:        %CPVWI
                   voice mail indication */

STRING(C_PERCENT_CPVWI_CLEAR_ALL, "AT%CPVWI=0" )
STRING(C_PERCENT_CPVWI_CLEAR_L1, "AT%CPVWI=0,1" )
STRING(C_PERCENT_CPVWI_CLEAR_L2, "AT%CPVWI=0,256" )
STRING(C_PERCENT_CPVWI_SET_ALL, "AT%CPVWI=1" )
STRING(C_PERCENT_CPVWI_SET_L1, "AT%CPVWI=1,1" )
STRING(C_PERCENT_CPVWI_SET_L2, "AT%CPVWI=1,256" )
STRING(C_PERCENT_CPVWI_QUERY_ALL, "AT%CPVWI=2" )
STRING(C_PERCENT_CPVWI_QUERY_L1, "AT%CPVWI=2,1" )
STRING(C_PERCENT_CPVWI_QUERY_L2, "AT%CPVWI=2,256" )
STRING(C_PERCENT_CPVWI_TEST, "AT%CPVWI=?" )

STRING(M_PERCENT_CPVWI_NOMSG, "%CPVWI: 0" )
STRING(M_PERCENT_CPVWI_MSG_L1, "%CPVWI: 1,1" )
STRING(M_PERCENT_CPVWI_NOMSG_L1, "%CPVWI: 0,1" )
STRING(M_PERCENT_CPVWI_MSG_L2, "%CPVWI: 1,256" )
STRING(M_PERCENT_CPVWI_NOMSG_L2, "%CPVWI: 0,256" )
STRING(M_PERCENT_CPVWI_MSG_L1L2, "%CPVWI: 1,257" )
STRING(M_PERCENT_CPVWI_MSG_L1FD, "%CPVWI: 1,7" )
STRING(M_PERCENT_CPVWI_MSG_L1L2FD, "%CPVWI: 1,263" )
STRING(M_PERCENT_CPVWI_TEST, "%CPVWI: (0-2),(1,256)" )

/* Command:        %CPCFU
                   call forwaring unconditional */
```

```
STRING(C_PERCENT_CPCFU_CLEAR_ALL, "AT%CPCFU=0" )
STRING(C_PERCENT_CPCFU_CLEAR_L1, "AT%CPCFU=0,1" )
STRING(C_PERCENT_CPCFU_CLEAR_L2, "AT%CPCFU=0,256" )
STRING(C_PERCENT_CPCFU_SET_ALL, "AT%CPCFU=1" )
STRING(C_PERCENT_CPCFU_SET_L1, "AT%CPCFU=1,1" )
STRING(C_PERCENT_CPCFU_SET_L2, "AT%CPCFU=1,256" )
STRING(C_PERCENT_CPCFU_QUERY_ALL, "AT%CPCFU=2" )
STRING(C_PERCENT_CPCFU_QUERY_L1, "AT%CPCFU=2,1" )
STRING(C_PERCENT_CPCFU_QUERY_L2, "AT%CPCFU=2,256" )
STRING(C_PERCENT_CPCFU_TEST, "AT%CPCFU=?" )

STRING(M_PERCENT_CPCFU_NOFLG, "%CPCFU: 0" )
STRING(M_PERCENT_CPCFU_FLG_L1, "%CPCFU: 1,1" )
STRING(M_PERCENT_CPCFU_FLG_L2FD, "%CPCFU: 1,262" )
STRING(M_PERCENT_CPCFU_FLG_L2, "%CPCFU: 1,256" )
STRING(M_PERCENT_CPCFU_FLG_L1FD, "%CPCFU: 1,7" )
STRING(M_PERCENT_CPCFU_FLG_L1L2, "%CPCFU: 1,257" )
STRING(M_PERCENT_CPCFU_FLG_L1L2FD, "%CPCFU: 1,263" )
STRING(M_PERCENT_CPCFU_TEST, "%CPCFU: (0-2),(1,256)" )

/* Command:     %CPALS
                alternate line service */

STRING(C_PERCENT_CPALS_SET_ID1, "AT%CPALS=1" )
STRING(C_PERCENT_CPALS_SET_ID2, "AT%CPALS=2" )
STRING(C_PERCENT_CPALS_QUERY, "AT%CPALS?" )
STRING(C_PERCENT_CPALS_TEST, "AT%CPALS=?" )

STRING(M_PERCENT_CPALS_L1, "%CPALS: 1,\"Line 1\"" )
STRING(M_PERCENT_CPALS_L2, "%CPALS: 2,\"Data\"" )
STRING(M_PERCENT_CPALS_L4, "%CPALS: 4,\"Fax\"" )
STRING(M_PERCENT_CPALS_L256, "%CPALS: 256,\"Line 2\"" )
STRING(M_PERCENT_CPALS_L256_SIM, "%CPALS: 256,\"LINE2\"" )

/* Command:     %CPINF
                CPHS information */

STRING(C_PERCENT_CPINF, "AT%CPINF?" )

STRING(M_PERCENT_CPINF_1, "%CPINF: 2,\"FF03\",\"01F802F803F804F005FE0680078008FB09FC\"" )
STRING(M_PERCENT_CPINF_2, "%CPINF: 1,\"0000\"" )

/* Command:     %CPMB
                mailbox numbers */

STRING(C_PERCENT_CPMB_1, "AT%CPMB=1" )
STRING(C_PERCENT_CPMB_2, "AT%CPMB=2" )
STRING(C_PERCENT_CPMB_3, "AT%CPMB=3" )
STRING(C_PERCENT_CPMB_4, "AT%CPMB=4" )
STRING(C_PERCENT_CPMB_TEST, "AT%CPMB=?" )

STRING(M_PERCENT_CPMB_1, "%CPMB: 1,1,\"12345\",129,\"Line 1\"" )
STRING(M_PERCENT_CPMB_3, "%CPMB: 3,2,\"13579\",129,\"Data\"" )
STRING(M_PERCENT_CPMB2_1, "%CPMB: 1,1,\"491793000333\",145,\"\"" )
STRING(M_PERCENT_CPMB2_3, "%CPMB: 3,2,\"\",0,\"\"" )
STRING(M_PERCENT_CPMB_TEST, "% CPMB: 4" )

/* Command:        % CPNUMS
                   information numbers */

STRING(C_PERCENT_CPNUMS_TEST, "AT% CPNUMS=?" )
STRING(C_PERCENT_CPNUMS_EXP_0, "AT% CPNUMS=0,1" )
STRING(C_PERCENT_CPNUMS_EXP_8, "AT% CPNUMS=8,1" )
STRING(C_PERCENT_CPNUMS_ELM_9, "AT% CPNUMS=9,2" )

STRING(M_PERCENT_CPNUMS_1, "% CPNUMS: 1,\"TRAVEL\",\"\",1,0,0" )
STRING(M_PERCENT_CPNUMS_2, "% CPNUMS: 2,\"TAXIS\",\"\",2,0,0" )
STRING(M_PERCENT_CPNUMS_3, "% CPNUMS: 3,\"Computercabs\",\"111\",3,0,0" )
STRING(M_PERCENT_CPNUMS_4, "% CPNUMS: 4,\"Dial-a-cab\",\"132\",3,0,0" )
STRING(M_PERCENT_CPNUMS_5, "% CPNUMS: 5,\"AIRPORTS\",\"\",2,0,0" )
STRING(M_PERCENT_CPNUMS_6, "% CPNUMS: 6,\"Heathrow\",\"345\",3,0,0" )
STRING(M_PERCENT_CPNUMS_7, "% CPNUMS: 7,\"Gatwick\",\"651\",3,0,0" )
STRING(M_PERCENT_CPNUMS_8, "% CPNUMS: 8,\"WEATHER\",\"\",1,0,0" )
STRING(M_PERCENT_CPNUMS_9, "% CPNUMS: 9,\"North\",\"323\",2,0,0" )
STRING(M_PERCENT_CPNUMS_10, "% CPNUMS: 10,\"South\",\"597\",2,0,0" )
STRING(M_PERCENT_CPNUMS_11, "% CPNUMS: 11,\"ENTERTAINMENT\",\"\",1,0,0" )
STRING(M_PERCENT_CPNUMS_12, "% CPNUMS: 12,\"Ticketmaster\",\"562\",2,0,0" )


/* Activate CFU Voive and data */
/*STRING(C_PLUS_CCFC_CFU_ACT, "AT+CCFC=0,1,,,5" )*/
STRING(C_PLUS_CCFC_CFU_VD_ACT, "AT+CCFC=0,1,,,3" )


/*---------------------------------------- AT commands ------------------------------------------ */

/* OK Response */
BEGINARRAY (F_RESP_OK, 6) 0x10, 0x00, 0x00, 0x00, 0x4F, 0x4B
ENDARRAY

/* +CBST Response */
BEGINARRAY (F_RESP_CBST, 16) 0x60, 0x00, 0x00, 0x00, 0x2b, 0x43, 0x42, 0x53, 0x54, 0x3a, 0x20, 0x 37, 0x2c, 0x30, 0x2c,
    0x31
ENDARRAY

/* +FCO Response */
BEGINARRAY (F_RESP_FCO, 6) 0x20, 0x00, 0x00, 0x00, 0x2B, 0x46, 0x43, 0x4f
ENDARRAY

/* 1. +COPN Response */
BEGINARRAY (F_RESP_COPN, 41) 0x28, 0x01, 0x00, 0x00, 0x2b, 0x43, 0x4f, 0x50, 0x4e, 0x3a, 0x20, 0x22, 0x35, 0x35, 0x35,
    0x35, 0x35, 0x22, 0x2c, 0x22, 0x5a, 0x57, 0x41, 0x4e, 0x5a, 0x49, 0x47, 0x20, 0x54, 0x45, 0x4c, 0x45, 0x4b, 0x4f, 0x4d, 0x20,
    0x40, 0x43, 0x4f, 0x4d, 0x22
ENDARRAY

/* CONNECT Response */
BEGINARRAY (F_RESP_CONNECT, 11) 0x38, 0x00, 0x00, 0x00, 0x43, 0x4F, 0x4E, 0x4E, 0x45, 0x43, 0x54
ENDARRAY

/* NO CARRIER Response */
BEGINARRAY (F_RESP_NO_CARRIER, 11) 0x50, 0x00, 0x00, 0x00, 0x4E, 0x4F, 0x20, 0x43, 0x41, 0x52, 0x52, 0x49, 0x45, 0x52
```

```
ENDARRAY

/* "Error" Response */
BEGINARRAY (F_RESP_ERROR, 9) 0x28, 0x00, 0x00, 0x00, 0x45, 0x52, 0x52, 0x4f, 0x52
ENDARRAY

/* Echo ATE0 */
BEGINARRAY (F_RESP_TE0_CR_OK, 10) 0x30, 0x00, 0x00, 0x00, 0x54, 0x45, 0x30, 0x0d, 0x4f, 0x4b
ENDARRAY

/* */
BEGINARRAY (F_RESP_A, 5) 0x08, 0x00, 0x00, 0x00, 0x41
ENDARRAY

/* */
BEGINARRAY (F_RESP_T, 5) 0x08, 0x00, 0x00, 0x00, 0x54
ENDARRAY

/* */
BEGINARRAY (F_RESP_E, 5) 0x08, 0x00, 0x00, 0x00, 0x45
ENDARRAY

/* */
BEGINARRAY (F_RESP_0, 5) 0x08, 0x00, 0x00, 0x00, 0x30
ENDARRAY

/* AT cmd GPAT+CF field */
BEGINARRAY (F_AT_CF, 11) 0x38, 0x00, 0x00, 0x00, 0x47, 0x50, 0x41, 0x54, 0x2B, 0x43, 0x46
ENDARRAY

/* AT cmd AT+FBU=1 field */
BEGINARRAY (F_AT_FBU_1, 13) 0x48, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x46 , 0x42, 0x55, 0x3D, 0x31, 0x0D
ENDARRAY

/* AT cmd ATH field */
BEGINARRAY (F_AT_H, 8) 0x20, 0x00, 0x00, 0x00, 0x41, 0x54, 0x48, 0x0D
ENDARRAY

/* AT cmd ATO field */
BEGINARRAY (F_AT_O, 8) 0x20, 0x00, 0x00, 0x00, 0x41, 0x54, 0x4F, 0x0D
ENDARRAY

/* AT cmd AT_UN1 field */
BEGINARRAY (F_AT_UN1, 9) 0x28, 0x00, 0x00, 0x00, 0x55, 0x4E, 0x3D, 0x31, 0x0D
ENDARRAY

/* AT cmd AT+COPN field */
BEGINARRAY (F_AT_COPN, 12) 0x40, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x43, 0x4F, 0x50, 0x4E, 0x0D
ENDARRAY

/* AT cmd A/ field */
BEGINARRAY (F_AT_REP, 7) 0x18, 0x00, 0x00, 0x00, 0x41, 0x2F, 0x0D
ENDARRAY

/* AT cmd AT+CBST=71,0,1 field */
```

```
BEGINARRAY (F_AT_CBST_NONTRA, 19) 0x78, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x43, 0x42, 0x53, 0x54, 0x3D, 0x37, 0x31,
    0x2C, 0x30, 0x2C, 0x31, 0x0D
ENDARRAY

/* AT cmd AT+CBST=71,0,0 field */
BEGINARRAY (F_AT_CBST_TRA, 19) 0x78, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x43, 0x42, 0x53, 0x54, 0x3D, 0x37, 0x31, 0x2C,
    0x30, 0x2C, 0x30, 0x0D
ENDARRAY

/* AT cmd AT+CBST? field */
BEGINARRAY (F_AT_CBST_CHECK, 13) 0x48, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x43, 0x42, 0x53, 0x54, 0x3F, 0x0D
ENDARRAY

/* AT cmd ATD123456 field */
BEGINARRAY (F_AT_D_DAT, 19) 0x78, 0x00, 0x00, 0x00, 0x41, 0x54, 0x44, 0x30, 0x33, 0x30, 0x33, 0x39, 0x30, 0x39, 0x34, 0x34,
    0x34, 0x34, 0x0D
ENDARRAY

/* AT cmd AT+FCLASS=2 field */
BEGINARRAY (F_AT_FCLASS_2, 18) 0x70, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x46, 0x43, 0x4C, 0x41, 0x53, 0x53, 0x3D, 0x32,
    0x2E, 0x30, 0x0D
ENDARRAY

/* AT cmd AT+FDT field */
BEGINARRAY (F_AT_FDT, 11) 0x38, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x46, 0x44, 0x54, 0x0D
ENDARRAY

/* AT cmd AT+FET=0 field */
BEGINARRAY (F_AT_FET0, 13) 0x48, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x46, 0x45, 0x54, 0x3D, 0x30, 0x0D
ENDARRAY

/* AT cmd AT+FET=2 field */
BEGINARRAY (F_AT_FET2, 13) 0x48, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x46, 0x45, 0x54, 0x3D, 0x32, 0x0D
ENDARRAY

/* AT cmd AT+BLUP field */
BEGINARRAY (F_AT_BLUP, 12) 0x40, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x42, 0x4C, 0x55, 0x50, 0x0D
ENDARRAY

/* AT cmd ATE0 field */
BEGINARRAY (F_AT_E0, 9) 0x28, 0x00, 0x00, 0x00, 0x41, 0x54, 0x45, 0x30, 0x0D
ENDARRAY

/* AT cmd AT+CMUX field */
BEGINARRAY (F_AT_CMUX, 14) 0x50, 0x00, 0x00, 0x00, 0x41, 0x54, 0x2B, 0x43, 0x4D, 0x55, 0x58, 0x3D, 0x31, 0x0D
ENDARRAY


/* --- international mobil subscriber identity --- */
BEGINARRAY (IMSI_FIELD_DATA, 9)
        0x20,0x26,0x30,0xFF,0xFF,0xFF,0xFF,0xFF,0xFF
ENDARRAY

/* --- IMSI --- */
BEGIN_PSTRUCT ("imsi_field", IMSI_E_PLUS)
```

```
            SET_COMP ("c_field",          0x09)
            SET_COMP ("field",            IMSI_FIELD_DATA)
ENDSTRUCT

/* chipcard identification field */
BEGINARRAY (F_ICC, 10)
            0x01, 0x02, 0x03, 0x04, 0x05, 0x06, 0x07, 0x08, 0x09, 0x00
ENDARRAY

/* mobile country code field */
BEGINARRAY (F_MCC_123, 3) 0x01, 0x02, 0x03 ENDARRAY
BEGINARRAY (F_MCC_262, 3) 0x02, 0x06, 0x02 ENDARRAY
BEGINARRAY (F_MCC_555, 3) 0x05, 0x05, 0x05 ENDARRAY

BEGIN_PSTRUCT_ARRAY (F_PLMN_LST, 12)
            PLMN_LST_1, PLMN_LST_2, PLMN_LST_3, PLMN_LST_4, PLMN_LST_5,
            EMPTY_PLMN_LST, EMPTY_PLMN_LST, EMPTY_PLMN_LST,
            EMPTY_PLMN_LST, EMPTY_PLMN_LST, EMPTY_PLMN_LST,
            EMPTY_PLMN_LST
ENDARRAY

BEGIN_PSTRUCT ("plmn", PLMN_LST_1)
            SET_COMP ("v_plmn", 0x01)
            SET_COMP ("mcc", MCC_PLMN_LST_1)
            SET_COMP ("mnc", MNC_PLMN_LST_1)
ENDSTRUCT

BEGINARRAY (MCC_PLMN_LST_1, 3) 0x02, 0x06, 0x02 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_1, 3) 0x00, 0x01, 0x0F ENDARRAY

BEGIN_PSTRUCT ("plmn", PLMN_LST_2)
            SET_COMP ("v_plmn", 0x01)
            SET_COMP ("mcc", MCC_PLMN_LST_2)
            SET_COMP ("mnc", MNC_PLMN_LST_2)
ENDSTRUCT

BEGINARRAY (MCC_PLMN_LST_2, 3) 0x02, 0x06, 0x02 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_2, 3) 0x00, 0x02, 0x0F ENDARRAY


BEGIN_PSTRUCT ("plmn", PLMN_LST_3)
            SET_COMP ("v_plmn", 0x01)
            SET_COMP ("mcc", MCC_PLMN_LST_3)
            SET_COMP ("mnc", MNC_PLMN_LST_3)
ENDSTRUCT

BEGINARRAY (MCC_PLMN_LST_3, 3) 0x02, 0x06, 0x02 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_3, 3) 0x00, 0x03, 0x0F ENDARRAY

BEGIN_PSTRUCT ("plmn", PLMN_LST_4)
            SET_COMP ("v_plmn", 0xFF)
            SET_COMP ("mcc", MCC_PLMN_LST_4)
            SET_COMP ("mnc", MNC_PLMN_LST_4)
ENDSTRUCT

BEGINARRAY (MCC_PLMN_LST_4, 3) 0x00, 0x00, 0x00 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_4, 2) 0x00, 0x00 ENDARRAY
```

```
BEGIN_PSTRUCT ("plmn", PLMN_LST_5)
            SET_COMP ("v_plmn", 0xFF)
            SET_COMP ("mcc", MCC_PLMN_LST_5)
            SET_COMP ("mnc", MNC_PLMN_LST_5)
ENDSTRUCT

BEGINARRAY (MCC_PLMN_LST_5, 3) 0x00, 0x00, 0x00 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_5, 2) 0x00, 0x00 ENDARRAY

BEGINARRAY (MCC_PLMN_LST_6, 3) 0x01, 0x02, 0x03 ENDARRAY
BEGINARRAY (MNC_PLMN_LST_6, 3) 0x04, 0x05, 0x06 ENDARRAY

BEGINARRAY (F_FRB_PLMN_LST, 7)
            0x00, 0x00, 0x00, 0x01, 0x00, 0x00, 0x00
ENDARRAY

BEGINARRAY (F_RXL_PLMN_LST, 7)
            0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00

ENDARRAY

BEGIN_PSTRUCT ("plmn", EMPTY_PLMN_LST)
            SET_COMP ("v_plmn", 0xFF)
            SKIP_COMP ("mcc")
            SKIP_COMP ("mnc")
ENDSTRUCT

/* mobile network code field */
BEGINARRAY (F_MNC_45F, 2) 0x04, 0x05, 0x0F ENDARRAY
BEGINARRAY (F_MNC_01F, 3) 0x00, 0x01, 0x0F ENDARRAY
BEGINARRAY (F_MNC_02F, 3) 0x00, 0x02, 0x0F ENDARRAY
BEGINARRAY (F_MNC_55, 2) 0x05, 0x05 ENDARRAY


/*----------------------------------------  arrays ------------------------------------------------------ */
BEGINARRAY (SIM_SERV_ADN_BDN_SDN, 10)
                0xCF,                 //            1100 1111
                0x3C,                 //            0011 1100
                0x3C,                 //            0011 1100
                0x03,                 //            0000 0011
                0xFF,                 //            1111 1111
                0x00,                 //            0000 0000
                0xC0,                 //            1100 0000
                0x30,                 //            0011 0000
                0x00,                 //            0000 0000
                0x00                  //            0000 0000
ENDARRAY

BEGINARRAY (SIM_SERV_ABSDN_NOSTK, 10)   //ADN BDN SDN no STK CCcheck
                0xCF,                 //            1100 1111
                0x3C,                 //            0011 1100
                0x3C,                 //            0011 1100
                0x03,                 //            0000 0011
                0xFF,                 //            1111 1111
                0x00,                 //            0000 0000
                0x00,                 //            0000 0000
                0x30,                       //              0011 0000
                0x00,                       //              0000 0000
                0x00                        //              0000 0000
ENDARRAY

// Service table signalling a support for GID1 and GID2 file on the SIM
BEGINARRAY (SIM_SERV_GID1_GID2, 10)
                0xCF,                       //              1100 1111 : 01-04
                0xCC,                       //              1100 1100 : 05-08
                0x3C,                       //              0011 1100 : 09-12
                0xF3,                       //              1111 0011 : 13-16
                0xFF,                       //              1111 1111
                0x00,                       //              0000 0000
                0xC0,                       //              1100 0000
                0x30,                       //              0011 0000
                0x00,                       //              0000 0000
                0x00                        //              0000 0000
ENDARRAY

// Service table signalling a support for GID1 but not for the GID2 file on the SIM
BEGINARRAY (SIM_SERV_GID1_NOGID2, 10)
                0xCF,                       //              1100 1111 : 01-04
                0xCC,                       //              1100 1100 : 05-08
                0x3C,                       //              0011 1100 : 09-12
                0x33,                       //              0011 0011 : 13-16
                0xFF,                       //              1111 1111
                0x00,                       //              0000 0000
                0xC0,                       //              1100 0000
                0x30,                       //              0011 0000
                0x00,                       //              0000 0000
                0x00                        //              0000 0000
ENDARRAY

/* PIN 1234 array */
BEGINARRAY_PART (A_PIN_1234,8)  0x31, 0x32, 0x33, 0x34, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* PIN 4321 array */
BEGINARRAY_PART (A_PIN_4321,8)  0x34, 0x33, 0x32, 0x31, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* PIN 1256 array */
BEGINARRAY_PART (A_PIN_12534,8)  0x31, 0x32, 0x35, 0x33, 0x34, 0xFF, 0xFF, 0xFF ENDARRAY
/* calling number array */
BEGINARRAY_PART (A_CLG_NUM,11) 0x0, 0x3, 0x0, 0x3, 0x9, 0x0, 0x9, 0x4, 0x2, 0x2, 0x3 ENDARRAY
BYTE LA_CLG_NUM 11
/* calling emergency array */
BEGINARRAY_PART (A_CLG_EMERG112,3) 0x1, 0x1, 0x2 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG000,3) 0x0, 0x0, 0x0 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG08,2) 0x0, 0x8 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG110,3) 0x1, 0x1, 0x0 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG118,3) 0x1, 0x1, 0x8 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG119,3) 0x1, 0x1, 0x9 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG911,3) 0x9, 0x1, 0x1 ENDARRAY
BEGINARRAY_PART (A_CLG_EMERG999,3) 0x9, 0x9, 0x9 ENDARRAY
BEGINARRAY_PART (A_CLG_NOEMERG999099,6) 0x9, 0x9, 0x9, 0x0, 0x9, 0x9 ENDARRAY
BYTE LA_CLG_EMERG 3
BYTE LA_CLG_EMERG08 2
BYTE LA_CLG_NOEMERG 6
```

```
/* called number array */
BEGINARRAY_PART (A_CLD_NUM,11) 0x0, 0x3, 0x0, 0x3, 0x9, 0x0, 0x9, 0x4, 0x4, 0x4, 0x4 ENDARRAY
BYTE LA_CLD_NUM 11
/* called emergency array */
BEGINARRAY_PART (A_CLD_EMERG112,3) 0x1, 0x1, 0x2 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG000,3) 0x0, 0x0, 0x0 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG08,2) 0x0, 0x8 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG110,3) 0x1, 0x1, 0x0 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG118,3) 0x1, 0x1, 0x8 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG119,3) 0x1, 0x1, 0x9 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG911,3) 0x9, 0x1, 0x1 ENDARRAY
BEGINARRAY_PART (A_CLD_EMERG999,3) 0x9, 0x9, 0x9 ENDARRAY
BEGINARRAY_PART (A_CLD_NOEMERG999099,6) 0x9, 0x9, 0x9, 0x0, 0x9, 0x9 ENDARRAY
BYTE LA_CLD_EMERG 3
BYTE LA_CLD_EMERG08 2
BYTE LA_CLD_NOEMERG 6
/* international called number array */
BEGINARRAY_PART (A_CLD_NUM_INT,13) 0x4, 0x9, 0x0, 0x3, 0x0, 0x3, 0x9, 0x0, 0x9, 0x4, 0x4, 0x4, 0x4 ENDARRAY
BYTE LA_CLD_NUM_INT 13
/* EF PLMNsel field array */
BEGINARRAY_PART (A_EF_PLMNSEL,30) 0xFF, 0xFF, 0xFF, 0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0xFF, 0xFF, 0xFF, 0x62, 0xF2,
0x30, 0x62, 0xF2, 0x70, 0xFF, 0xFF, 0xFF, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY

/* EF PLMNsel field array, deleted entry*/
BEGINARRAY_PART (A_EF_PLMNSEL_DEL,26) 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0x62, 0xF2, 0x20, 0xFF, 0xFF, 0xFF, 0x62,
0xF2, 0x30, 0x62, 0xF2, 0x70, 0xFF, 0xFF, 0xFF, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF ENDARRAY


/* EF PLMNsel field array, deleted entry, compact*/
BEGINARRAY_PART (A_EF_PLMNSEL_DEL_CMP,26) 0x62, 0xF2, 0x20, 0x62, 0xF2, 0x30, 0x62, 0xF2, 0x70, 0x32, 0xF4, 0x33,
0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array, inserted entry, compact*/
BEGINARRAY_PART (A_EF_PLMNSEL_INS_CMP,26) 0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0x82, 0xF4, 0x10, 0x62, 0xF2, 0x30,
0x62, 0xF2, 0x70, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array, inserted 1st entry, compact*/
BEGINARRAY_PART (A_EF_PLMNSEL_INS_1_CMP,26) 0x82, 0xF4, 0x10,0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0x62, 0xF2, 0x30,
0x62, 0xF2, 0x70, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array, append entry, compact*/
BEGINARRAY_PART (A_EF_PLMNSEL_NEW_CMP,26) 0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0x62, 0xF2, 0x30, 0x62, 0xF2, 0x70,
0x32, 0xF4, 0x33, 0x82, 0xF4, 0x10, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array, changed entries, compact*/
BEGINARRAY_PART (A_EF_PLMNSEL_CHG_CMP,26) 0x32, 0xF4, 0x33, 0x62, 0xF2, 0x20, 0x62, 0xF2, 0x30, 0x62, 0xF2, 0x70,
0x62, 0xF2, 0x10, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array, overwritten entry*/
BEGINARRAY_PART (A_EF_PLMNSEL_OVR,26) 0xFF, 0xFF, 0xFF, 0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0xFF, 0xFF, 0xFF, 0x82,
0xF4, 0x10, 0x62, 0xF2, 0x70, 0xFF, 0xFF, 0xFF, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF PLMNsel field array */
BEGINARRAY_PART (A_EF_PLMNSEL_NEW,26) 0x82, 0xF4, 0x10, 0x62, 0xF2, 0x10, 0x62, 0xF2, 0x20, 0xFF, 0xFF, 0xFF, 0x62,
0xF2, 0x30, 0x62, 0xF2, 0x70, 0xFF, 0xFF, 0xFF, 0x32, 0xF4, 0x33, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF ECC field array */
BEGINARRAY (A_ECC_FIELD,12) 0x11, 0xF2, 0xFF, 0x99, 0xF9, 0xFF, 0x21, 0x43, 0x65, 0xFF, 0xFF, 0xFF ENDARRAY
/* EF ECC field array empty */
BEGINARRAY (A_ECC_FIELD_EMPTY,12) 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF , 0xFF
ENDARRAY
/* EF AD field array , disable CI */
BEGINARRAY_PART (A_AD_FIELD_CI_DISABLED,4) 0x00, 0x00, 0x00, 0x02 ENDARRAY
```

```
/* EF AD field array , enable CI */
BEGINARRAY_PART (A_AD_FIELD_CI_ENABLED,4) 0x00, 0x00, 0x01, 0x02 ENDARRAY
/* EF ACM field array */
BEGINARRAY_PART (A_ACM_FIELD,3)  0x12, 0x34, 0x56 ENDARRAY
/* EF ADN record array */
BEGINARRAY (A_ADN_REC,20) 0x01, 0x23, 0x45, 0x67, 0x89, 0xAB, 0xCD, 0xEF, 0x01, 0x23, 0x45, 0x67, 0x89, 0xAB, 0xCD,
0xEF, 0x01, 0x23, 0x45, 0x67 ENDARRAY


/* SIM CPHS Fields */
/* EF CPHS CFU field array */
BEGINARRAY_PART (A_CPHS_CFU_FIELD,2)
        0x55, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_ALL,2)
        0xAA, 0xAA
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_LINE1,2)
        0xA5, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_L1L2,2)
        0xAA, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_NOLINE2,2)
        0xA5, 0xAA
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_LINE2,2)
        0x5A, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_CFU_FIELD_NOLINE1,2)
        0x5A, 0xAA
ENDARRAY

BYTE CPHS_CFU_LEN 2


/* EF VWI - CPHS VMW field array */
BEGINARRAY_PART (A_CPHS_VWI_FIELD,2)
        0x55, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_ALL,2)
        0xAA, 0xAA
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_LINE1,2)
        0xA5, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_L1L2,2)
```

```
            0xAA, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_NOLINE2,2)
            0xA5, 0xAA
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_LINE2,2)
            0x5A, 0x55
ENDARRAY

BEGINARRAY_PART (A_CPHS_VWI_FIELD_NOLINE1,2)
            0x5A, 0xAA
ENDARRAY

BYTE CPHS_VWI_LEN 2

/* EF CPHS SST field array */
BEGINARRAY_PART (A_CPHS_SST_FIELD,4)
            0x00, 0x00, 0x00, 0x00
ENDARRAY
BYTE CPHS_SST_LEN 4

/* EF CPHS OPN field array */
BEGINARRAY_PART (A_CPHS_OPN_FIELD,20)
            0x54, 0x2D, 0x4D, 0x6F, 0x62, 0x69, 0x6C, 0x20,
            0x44, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
            0x00, 0x00, 0x00, 0x00
ENDARRAY
BYTE CPHS_OPN_LEN 20

/* EF CPHS OPNS field array */
BEGINARRAY_PART (A_CPHS_OPNS_FIELD,5)
            0x54, 0x4D, 0x4F, 0x20, 0x44
ENDARRAY
BYTE CPHS_OPNS_LEN 5

/* EF CPHS CSP field array */
BYTE CPHS_CSP_LEN 18
BEGINARRAY_PART (A_CPHS_CSP_FIELD,18)
            0x01, 0xF8,
            0x02, 0xF8,
            0x03, 0xF8,
            0x04, 0xF0,
            0x05, 0xFE,
            0x06, 0x80,
            0x07, 0x80,
            0x08, 0xFB,
            0x09, 0xFC
ENDARRAY

/* EF CINF - CPHS INF field array */
BEGINARRAY_PART (A_CPHS_INF_FIELD,3)
            0x01, 0x00, 0x00
ENDARRAY
BYTE CPHS_INF_LEN 3
```

```
/* EF CINF - CPHS INF ALL field array */
BEGINARRAY_PART (A_CPHS_INF_ALL_FIELD,3)
            0x02, 0xFF, 0x03
ENDARRAY
BYTE CPHS_INF_ALL_LEN 3

/* EF CPHS INUM field array */
BEGINARRAY_PART (A_CPHS_INUM_FIELD,20)
            0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
            0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
            0x00, 0x00, 0x00, 0x00
ENDARRAY
BYTE CPHS_INUM_LEN 20

BYTE A_CPHS_INUM_REC1_LEN 12
BEGINARRAY_PART (A_CPHS_INUM_REC1, A_CPHS_INUM_REC1_LEN)
            0x06, 0xC1, 0x54, 0x52, 0x41, 0x56, 0x45, 0x4C,
            0x01, 0x81, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC2_LEN 11
BEGINARRAY_PART (A_CPHS_INUM_REC2, A_CPHS_INUM_REC2_LEN)
            0x05, 0xC2, 0x54, 0x41, 0x58, 0x49, 0x53,
            0x01, 0x81, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC3_LEN 19
BEGINARRAY_PART (A_CPHS_INUM_REC3, A_CPHS_INUM_REC3_LEN)
            0x0C, 0xC3, 0x43, 0x6F, 0x6D, 0x70, 0x75, 0x74, 0x65, 0x72, 0x63, 0x61, 0x62, 0x73,
            0x03, 0x81, 0x11, 0xF1, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC4_LEN 21
BEGINARRAY_PART (A_CPHS_INUM_REC4, A_CPHS_INUM_REC4_LEN)
            0x0A, 0xC3, 0x44, 0x69, 0x61, 0x6C, 0x2D, 0x61, 0x2D, 0x63, 0x61, 0x62,
            0x03, 0x81, 0x31, 0xF2, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC5_LEN 14
BEGINARRAY_PART (A_CPHS_INUM_REC5, A_CPHS_INUM_REC5_LEN)
            0x08, 0xC2, 0x41, 0x49, 0x52, 0x50, 0x4F, 0x52, 0x54, 0x53,
            0x01, 0x81, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC6_LEN 15
BEGINARRAY_PART (A_CPHS_INUM_REC6, A_CPHS_INUM_REC6_LEN)
            0x08, 0xC3, 0x48, 0x65, 0x61, 0x74, 0x68, 0x72, 0x6F, 0x77,
            0x03, 0x81, 0x43, 0xF5, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC7_LEN 14
BEGINARRAY_PART (A_CPHS_INUM_REC7, A_CPHS_INUM_REC7_LEN)
            0x07, 0xC3, 0x47, 0x61, 0x74, 0x77, 0x69, 0x63, 0x6B,
            0x03, 0x81, 0x56, 0xF1, 0xFF
ENDARRAY
```

```
BYTE A_CPHS_INUM_REC8_LEN 13
BEGINARRAY_PART (A_CPHS_INUM_REC8, A_CPHS_INUM_REC8_LEN)
        0x07, 0xC1, 0x57, 0x45, 0x41, 0x54, 0x48, 0x45, 0x52,
        0x01, 0x81, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC9_LEN 12
BEGINARRAY_PART (A_CPHS_INUM_REC9, A_CPHS_INUM_REC9_LEN)
        0x05, 0xC2, 0x4E, 0x6F, 0x72, 0x74, 0x68,
        0x03, 0x81, 0x23, 0xF3, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC10_LEN 12
BEGINARRAY_PART (A_CPHS_INUM_REC10, A_CPHS_INUM_REC10_LEN)
        0x05, 0xC2, 0x53, 0x6F, 0x75, 0x74, 0x68,
        0x03, 0x81, 0x95, 0xF7, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC11_LEN 19
BEGINARRAY_PART (A_CPHS_INUM_REC11, A_CPHS_INUM_REC11_LEN)
        0x0D, 0xC1, 0x45, 0x4E, 0x54, 0x45, 0x52, 0x54, 0x41, 0x49, 0x4E, 0x4D, 0x45, 0x4E, 0x54,
        0x01, 0x81, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_INUM_REC12_LEN 19
BEGINARRAY_PART (A_CPHS_INUM_REC12, A_CPHS_INUM_REC12_LEN)
        0x0C, 0xC2, 0x54, 0x69, 0x63, 0x6B, 0x65, 0x74, 0x6D, 0x61, 0x73, 0x74, 0x65, 0x72,
        0x03, 0x81, 0x65, 0xF2, 0xFF
ENDARRAY


/* EF CPHS MB field array */
BYTE A_CPHS_MB1_REC1_LEN 20
BEGINARRAY_PART (A_CPHS_MB1_REC1, A_CPHS_MB1_REC1_LEN)
        0x4C, 0x69, 0x6E, 0x65, 0x20, 0x31,
        0x04,
        0x81,
        0x21, 0x43, 0xF5, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
        0x00, 0xFF
ENDARRAY

BYTE A_CPHS_MB1_REC2_LEN 20
BEGINARRAY_PART (A_CPHS_MB1_REC2, A_CPHS_MB1_REC2_LEN)
        0x4C, 0x69, 0x6E, 0x65, 0x20, 0x32,
        0x04,
        0x81,
        0x56, 0x34, 0x12, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
        0x00, 0xFF
ENDARRAY

BYTE A_CPHS_MB1_REC3_LEN 18
BEGINARRAY_PART (A_CPHS_MB1_REC3, A_CPHS_MB1_REC3_LEN)
        0x44, 0x61, 0x74, 0x61,
        0x04,
        0x81,
            0x31, 0x75, 0xF9, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0x00, 0xFF
ENDARRAY

BYTE A_CPHS_MB1_REC4_LEN 17
BEGINARRAY_PART (A_CPHS_MB1_REC4, A_CPHS_MB1_REC4_LEN)
            0x46, 0x61, 0x78,
            0x04,
            0x81,
            0x68, 0x24, 0xF0, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0x00, 0xFF
ENDARRAY

/* a second EF CPHS MB field array */
BYTE A_CPHS_MB2_REC1_LEN 30
BEGINARRAY_PART (A_CPHS_MB2_REC1, A_CPHS_MB2_REC1_LEN)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0x07, 0x91, 0x94, 0x71,
            0x39, 0x00, 0x30, 0x33, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_MB2_REC2_LEN 30
BEGINARRAY_PART (A_CPHS_MB2_REC2, A_CPHS_MB2_REC2_LEN)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_MB2_REC3_LEN 30
BEGINARRAY_PART (A_CPHS_MB2_REC3, A_CPHS_MB2_REC3_LEN)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY

BYTE A_CPHS_MB2_REC4_LEN 30
BEGINARRAY_PART (A_CPHS_MB2_REC4, A_CPHS_MB2_REC4_LEN)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY



/* MSISDN field array */
BYTE LDATA_MSISDN 34
BEGINARRAY(DATA_MSISDN, 34)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0x81,
            0x30, 0x30, 0x49, 0x19, 0x44, 0xF7, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY
BEGINARRAY(DATA_MSISDN2, 34)
            0x4C, 0x49, 0x4E, 0x45, 0x32, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY
BEGINARRAY(DATA_MSISDN3, 34)
            0x4C, 0x49, 0x4E, 0x45, 0x32, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF,
            0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY
BEGINARRAY(DATA_MSISDN4, 34)
            0x4C, 0x49, 0x4E, 0x45, 0x32, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0x01, 0x02
ENDARRAY
BEGINARRAY(DATA_MSISDN5, 34)
            0x4C, 0x49, 0x4E, 0x45, 0x32, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0xFF,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0x02, 0x02
ENDARRAY
BYTE LDATA_CCP 14
BEGINARRAY(DATA_CCP, 14)
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY
BYTE LDATA_CCP2 14
BEGINARRAY(DATA_CCP2, 14)
            0x01, 0xA0, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY
BYTE LDATA_CCP3 14
BEGINARRAY(DATA_CCP3, 14)
            0x01, 0xA6, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0xFF, 0xFF, 0xFF, 0xFF
ENDARRAY

/* SDN field array */
BEGINARRAY(DATA_SDN000, 34) 0x48, 0x65, 0x69, 0x65, 0x72, 0x2C, 0x20, 0x4D, 0x61, 0x78,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0x81,
            0x00, 0xF0, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,0xFF
ENDARRAY
BEGINARRAY(DATA_SDN119, 34) 0x48, 0x65, 0x69, 0x65, 0x72, 0x2C, 0x20, 0x4D, 0x61, 0x78,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0x81,
            0x11, 0xF9, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,0xFF
ENDARRAY
BEGINARRAY(DATA_SDN911, 34) 0x48, 0x65, 0x69, 0x65, 0x72, 0x2C, 0x20, 0x4D, 0x61, 0x78,
            0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,
            0x08,
            0x81,
            0x19, 0xF1, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,0xFF,0xFF
ENDARRAY
BYTE LDATA_SDN 34

/* EF SMS record array */
BEGINARRAY_PART (A_SMS_REC,10) 0x12, 0x34, 0x56, 0x78, 0x90, 0x12, 0x34, 0x56, 0x78, 0x90 ENDARRAY
/* get response data */
BEGINARRAY (A_RESP_DATA,10) 0x12, 0x34, 0x56, 0x78, 0x90, 0x12, 0x34, 0x56, 0x78, 0x90 ENDARRAY

/* EF ELP field array */
BEGINARRAY (A_ELP_FIELD,20) 0x64, 0x65, 0x65, 0x6E, 0x61, 0x72, 0x66, 0x72, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY

/*BEGINARRAY (A_ELP_FIELD,20) 0x73, 0x76, 0x65, 0x6E, 0x61, 0x72, 0x66, 0x72, 0xFF, 0xFF, 0xFF, 0xFF,  0xFF, 0xFF, 0xFF,
0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY*/

/* EF ELP field array */
BEGINARRAY (A_ELP_LAN_NOT_SUP,20) 0x73, 0x76, 0x65, 0x6E, 0x61, 0x72, 0x66, 0x72, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF,
0xFF, 0xFF, 0xFF, 0xFF, 0xFF, 0xFF ENDARRAY

/* EF LP field array */
BEGINARRAY (A_LP_FIELD,5) 0x16, 0x02, 0x03, 0x04, 0xFF ENDARRAY

/* EF LP field array */
BEGINARRAY (A_LP_LAN_NOT_SUP,5) 0x17, 0x02, 0x03, 0x04, 0xFF ENDARRAY

/*AT cmd neighbour cell field */
BEGIN_SHORT_ARRAY (A_ARFCN_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_SHORT_ARRAY (A_C1_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_SHORT_ARRAY (A_C2_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGINARRAY (A_RXLEV_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGINARRAY (A_BSIC_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_SHORT_ARRAY (A_CELL_ID_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_SHORT_ARRAY (A_LAC_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_LONG_ARRAY (A_FRAME_OFFSET,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGIN_LONG_ARRAY (A_TIME_ALIGNMT,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGINARRAY (A_CBA_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY
BEGINARRAY (A_CBQ_NC,6) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06 ENDARRAY

BEGINARRAY (A_IDENT_DIG, 16) 0x01, 0x02, 0x03, 0x04, 0x05, 0x06, 0x07, 0x08, 0x01, 0x02, 0x03, 0x04, 0x05, 0x06, 0x07, 0x08
ENDARRAY
BEGINARRAY (EM_FF, 6) 0XFF, 0XFF, 0XFF, 0XFF, 0XFF, 0XFF
ENDARRAY

BEGIN_SHORT_ARRAY (A_MA, 3) 0x1, 0x2, 0xFFFF ENDARRAY
BEGIN_SHORT_ARRAY (A_MA2, 3) 0x4, 0x5, 0xFFFF ENDARRAY

/*---------------------------------------- SIM lock ------------------------------------------ */

/* IMSI with network id not matching ME */
BEGINARRAY (IMSI_FIELD_NW_FAIL_DATA,9)
/*          0x02,0x21,0x30,0xFF,0xFF,0xFF,0xFF,0xFF,0xFF is correct          */
            0x02,0x21,0x40,0x02,0x02,0x03,0xFF,0xFF,0xFF
ENDARRAY
```

```
/* IMSI with subnetwork id not matching ME */
BEGINARRAY (IMSI_FIELD_NWSUB_FAIL_DATA,9)
/*          0x02,0x21,0x30,0x01,0xFF,0xFF,0xFF,0xFF,0xFF is correct          */
            0x02,0x21,0x30,0x02,0x03,0x03,0xFF,0xFF,0xFF
ENDARRAY

/* IMSI with correct NW and subNW */
BEGINARRAY (IMSI_FIELD_NW_NS_OK_DATA,9)
/*          0x02,0x21,0x30,0x01,0xFF,0xFF,0xFF,0xFF,0xFF is correct          */
            0x02,0x21,0x30,0x01,0x02,0x03,0xFF,0xFF,0xFF
ENDARRAY

/* IMSI with correct NW and subNW but not matching the rest of the IMSI*/
BEGINARRAY (IMSI_FIELD_SIM_FAIL_DATA,9)
/*          0x02,0x21,0x30,0x01,0x02,0x03,0x45,0x67,0x89 is correct          */
            0x02,0x21,0x30,0x01,0x02,0x03,0x45,0x77,0xFF
ENDARRAY

/* IMSI matching (one of) the IMSI(s), the ME is personalised on */
BEGINARRAY (IMSI_FIELD_SIM_OK_DATA,9)
/*          0x02,0x21,0x30,0x01,0x02,0x03,0x45,0x67,0x89 is correct          */
            0x02,0x21,0x30,0x01,0x02,0x03,0x45,0x67, 0x89
ENDARRAY

BEGIN_PSTRUCT ("imsi_field", IMSI_FIELD_NW_FAIL)
            SET_COMP ("c_field",        0x09)
            SET_COMP ("field",          IMSI_FIELD_NW_FAIL_DATA)
ENDSTRUCT
BEGIN_PSTRUCT ("imsi_field", IMSI_FIELD_NWSUB_FAIL)
            SET_COMP ("c_field",        0x09)
            SET_COMP ("field",          IMSI_FIELD_NWSUB_FAIL_DATA)
ENDSTRUCT
BEGIN_PSTRUCT ("imsi_field", IMSI_FIELD_NW_NS_OK)
            SET_COMP ("c_field",        0x09)
            SET_COMP ("field",          IMSI_FIELD_NW_NS_OK_DATA)
ENDSTRUCT
BEGIN_PSTRUCT ("imsi_field", IMSI_FIELD_SIM_FAIL)
            SET_COMP ("c_field",        0x09)
            SET_COMP ("field",          IMSI_FIELD_SIM_FAIL_DATA)
ENDSTRUCT
BEGIN_PSTRUCT ("imsi_field", IMSI_FIELD_SIM_OK)
            SET_COMP ("c_field",        0x09)
            SET_COMP ("field",          IMSI_FIELD_SIM_OK_DATA)
ENDSTRUCT


/* GID1 and GID2 files for  SP and corporate lock tests */

BEGINARRAY (A_GID1_FAIL_FIELD,3) 0x02,0xFF,0xFF ENDARRAY
BEGINARRAY (A_GID1_OK_FIELD,3) 0x01,0xFF,0xFF ENDARRAY
BEGINARRAY (A_GID2_FAIL_FIELD,3) 0x02,0xFF,0xFF ENDARRAY
BEGINARRAY (A_GID2_OK_FIELD,3) 0x01,0xFF,0xFF ENDARRAY


/*--------------------------------------- SS facilities ----------------------------------------- */
```

```
/* invoke build MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_BUILD_MPTY)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_BUILD_MPTY_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_BUILD_MPTY_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x00, 0x02, 0x01, 0x7C
ENDARRAY


/* invoke split MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_SPLIT_MPTY)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_SPLIT_MPTY_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_SPLIT_MPTY_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x01, 0x02, 0x01, 0x79
ENDARRAY

/* invoke hold MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_HOLD_MPTY)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_HOLD_MPTY_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_HOLD_MPTY_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x01, 0x02, 0x01, 0x7B
ENDARRAY

/* invoke hold MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_HOLD_MPTY_2)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_HOLD_MPTY_2_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_HOLD_MPTY_2_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x03, 0x02, 0x01, 0x7B
ENDARRAY

/* invoke retrieve MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_RETRIEVE_MPTY)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_RETRIEVE_MPTY_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_RETRIEVE_MPTY_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x02, 0x02, 0x01, 0x7A
ENDARRAY
```

```
/* invoke ECT FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_ECT)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_ECT_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_ECT_CONTENT, 8)
            0xA1, 0x06, 0x02, 0x01, 0x00, 0x02, 0x01, 0x7E
ENDARRAY

/* invoke ECT FIE Retry !*/
BEGIN_PSTRUCT ("fac_inf", A_FAC_ECT_2)
            SET_COMP ("l_fac", 0x0040)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_ECT_CONTENT_2)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_ECT_CONTENT_2, 8)
            0xA1, 0x06, 0x02, 0x01, 0x01, 0x02, 0x01, 0x7E
ENDARRAY

/* invoke CCBS FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCBS)
            SET_COMP ("l_fac", 0x0050)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_CCBS_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_CCBS_CONTENT, 10)
            0xA1, 0x08, 0x02, 0x01, 0x00, 0x02, 0x01, 0x77, 0x30, 0x00
ENDARRAY

/* invoke notify CCBS */
BEGIN_PSTRUCT ("fac_inf", A_FAC_NTFY_CCBS)
            SET_COMP ("l_fac", 0x0100)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_NTFY_CCBS_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_NTFY_CCBS_CONTENT, 32)
            0xA1, 0x1E, 0x02, 0x01, 0x00, 0x02, 0x01, 0x10, 0x30, 0x16, 0xB5, 0x11, 0x80, 0x01, 0x01, 0x81, 0x07,  0x91, 0x94,
0x03, 0x93, 0x90, 0x44, 0x44, 0xA3, 0x03, 0x83, 0x01, 0x10, 0x96, 0x01, 0x03
ENDARRAY

/* empty FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_EMPTY)
            SKIP_COMP ("l_fac")
            SKIP_COMP ("o_fac")
            SKIP_COMP ("fac")
ENDSTRUCT

/* result build MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_BUILD_MPTY_RES)
            SET_COMP ("l_fac", 0x0028)
            SET_COMP ("o_fac", 0x0000)
```

```
        SET_COMP ("fac", A_FAC_BUILD_MPTY_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_BUILD_MPTY_RES_CONTENT, 5)
        0xA2, 0x03, 0x02, 0x01, 0x00
ENDARRAY

/* result split MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_SPLIT_MPTY_RES)
        SET_COMP ("l_fac", 0x0028)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_SPLIT_MPTY_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_SPLIT_MPTY_RES_CONTENT, 5)
        0xA2, 0x03, 0x02, 0x01, 0x00
ENDARRAY

/* result hold MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_HOLD_MPTY_RES)
        SET_COMP ("l_fac", 0x0028)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_HOLD_MPTY_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_HOLD_MPTY_RES_CONTENT, 5)
        0xA2, 0x03, 0x02, 0x01, 0x00
ENDARRAY

/* result retrieve MPTY FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_RETRIEVE_MPTY_RES)
        SET_COMP ("l_fac", 0x0028)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_RETRIEVE_MPTY_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_RETRIEVE_MPTY_RES_CONTENT, 5)
        0xA2, 0x03, 0x02, 0x01, 0x00
ENDARRAY

/* result ECT FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_ECT_RES)
        SET_COMP ("l_fac", 0x0028)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_ECT_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_ECT_RES_CONTENT, 5)
        0xA2, 0x03, 0x02, 0x01, 0x00
ENDARRAY

/* result ECT FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_ECT_REJ_RES)
        SET_COMP ("l_fac", 0x0040)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_ECT_REJ_RES_CONTENT)
```

```
ENDSTRUCT

BEGINARRAY_PART (A_FAC_ECT_REJ_RES_CONTENT, 8)
        0xA3, 0x06, 0x02, 0x01, 0x00, 0x02, 0x01, 0x11
ENDARRAY


/* result CCBS FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCBS_RES)
        SET_COMP ("l_fac", 0x00F8)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_CCBS_RES_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_CCBS_RES_CONTENT, 31)
        0xA2, 0x1D, 0x02, 0x01, 0x00, 0x30, 0x18, 0x02, 0x01, 0x77, 0x30, 0x13, 0xA0, 0x11, 0x80, 0x01, 0x01,  0x81, 0x07,
0x91, 0x94, 0x03, 0x93, 0x90, 0x24, 0x32, 0xA3, 0x03, 0x83, 0x01, 0x10
ENDARRAY

/* error CCBS FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCBS_ERR)
        SET_COMP ("l_fac", 0x0040)
        SET_COMP ("o_fac", 0x0000)
        SET_COMP ("fac", A_FAC_CCBS_ERR_CONTENT)
ENDSTRUCT

BEGINARRAY_PART (A_FAC_CCBS_ERR_CONTENT, 8)
        0xA3, 0x06, 0x02, 0x01, 0x00, 0x02, 0x01, 0x15
ENDARRAY

/* advice of charge facility */
BEGINARRAY (A_FAC_AOC,43) 0xA1, 0x29, 0x02, 0x01, 0x00, 0x02, 0x01, 0x7D, 0x30, 0x7E, 0x80, 0x01, 0x72, 0xA1, 0x1A, 0x81,
0x01, 0x3C, 0x82, 0x02, 0x00, 0x8C, 0x83, 0x01, 0x64, 0x84, 0x02, 0x00, 0xFA, 0x85, 0x02, 0x00, 0x00, 0x86, 0x02, 0x00, 0x00,
0x87, 0x02, 0x02, 0x58, 0x00, 0x00 ENDARRAY
BYTE LA_FAC_AOC 344
/*----------------------------------------  structures ----------------------------------------------------- */

/* plmn declaration */
 BEGIN_PSTRUCT ("plmn", S_PLMN_123_45)
            SET_COMP ("v_plmn",                 NUM_1)
            SET_COMP ("mcc",                    F_MCC_123)
            SET_COMP ("mnc",                    F_MNC_45F)
ENDSTRUCT

BEGIN_PSTRUCT ("plmn", S_PLMN_262_01)
            SET_COMP ("v_plmn",                 NUM_1)
            SET_COMP ("mcc",                    F_MCC_262)
            SET_COMP ("mnc",                    F_MNC_01F)
ENDSTRUCT

BEGIN_PSTRUCT ("plmn", S_PLMN_262_02)
            SET_COMP ("v_plmn",                 NUM_1)
            SET_COMP ("mcc",                    F_MCC_262)
            SET_COMP ("mnc",                    F_MNC_02F)
ENDSTRUCT
```

```
/* bearer service not present */
 BEGIN_PSTRUCT ("bcpara", S_BS_NOT_PRESENT)
              SET_COMP ("rate",                    UR_NOT_PRES)
              SET_COMP ("bearer_serv",             BEARER_SERV_NOT_PRES)
              SET_COMP ("conn_elem",               CONN_ELEM_NOT_PRES)
              SET_COMP ("stop_bits",               STOP_1_BIT)
              SET_COMP ("data_bits",               DATA_8_BIT)
              SET_COMP ("parity",                  PARITY_NONE)
              SET_COMP ("flow_control",            NO_FLOW_CONTROL)
              SET_COMP ("modem_type",              MT_NONE)
ENDSTRUCT

/* bearer service voice */
 BEGIN_PSTRUCT ("bcpara", S_BS_VOICE)
              SET_COMP ("rate",                    UR_NOT_PRES)
              SET_COMP ("bearer_serv",             BEARER_SERV_SPEECH)
              SET_COMP ("conn_elem",               CONN_ELEM_NOT_PRES)
              SET_COMP ("stop_bits",               STOP_1_BIT)
              SET_COMP ("data_bits",               DATA_8_BIT)
              SET_COMP ("parity",                  PARITY_NONE)
              SET_COMP ("flow_control",            NO_FLOW_CONTROL)
              SET_COMP ("modem_type",              MT_NONE)
ENDSTRUCT

/* bearer service aux voice */
 BEGIN_PSTRUCT ("bcpara", S_BS_AUX_VOICE)
              SET_COMP ("rate",                    UR_NOT_PRES)
              SET_COMP ("bearer_serv",             BEARER_SERV_AUX_SPEECH)
              SET_COMP ("conn_elem",               CONN_ELEM_NOT_PRES)
              SET_COMP ("stop_bits",               STOP_1_BIT)
              SET_COMP ("data_bits",               DATA_8_BIT)
              SET_COMP ("parity",                  PARITY_NONE)
              SET_COMP ("flow_control",            NO_FLOW_CONTROL)
              SET_COMP ("modem_type",              MT_NONE)
ENDSTRUCT

/* bearer service emergency */
 BEGIN_PSTRUCT ("bcpara", S_BS_EMERG)
              SET_COMP ("rate",                    UR_NOT_PRES)
              SET_COMP ("bearer_serv",             BEARER_SERV_SPEECH)
              SET_COMP ("conn_elem",               CONN_ELEM_NOT_PRES)
              SET_COMP ("stop_bits",               STOP_1_BIT)
              SET_COMP ("data_bits",               DATA_8_BIT)
              SET_COMP ("parity",                  PARITY_NONE)
              SET_COMP ("flow_control",            NO_FLOW_CONTROL)
              SET_COMP ("modem_type",              MT_NONE)
ENDSTRUCT

/* bearer service FAX 9600 */
 BEGIN_PSTRUCT ("bcpara", S_BS_FAX)
              SET_COMP ("rate",                    UR_9_6_KBIT)
              SET_COMP ("bearer_serv",             BEARER_SERV_FAX)
              SET_COMP ("conn_elem",               CONN_ELEM_TRANS)
              SET_COMP ("stop_bits",               STOP_1_BIT)
              SET_COMP ("data_bits",               DATA_8_BIT)
              SET_COMP ("parity",                  PARITY_NONE)
```

```
                SET_COMP ("flow_control",             NO_FLOW_CONTROL)
                SET_COMP ("modem_type",               MT_NONE)
ENDSTRUCT

/* bearer service FAX 14400 */
 BEGIN_PSTRUCT ("bcpara", S_BS_FAX_14400)
                SET_COMP ("rate",                     UR_14_4_KBIT)
                SET_COMP ("bearer_serv",              BEARER_SERV_FAX)
                SET_COMP ("conn_elem",                CONN_ELEM_TRANS)
                SET_COMP ("stop_bits",                STOP_1_BIT)
                SET_COMP ("data_bits",                DATA_8_BIT)
                SET_COMP ("parity",                   PARITY_NONE)
                SET_COMP ("flow_control",             NO_FLOW_CONTROL)
                SET_COMP ("modem_type",               MT_NONE)
ENDSTRUCT

/* bearer service default value */
 BEGIN_PSTRUCT ("bcpara", S_BS_DAT_default)
          SET_COMP ("rate",          UR_9_6_KBIT)
          SET_COMP ("bearer_serv",   BEARER_SERV_ASYNC)
          SET_COMP ("conn_elem",     CONN_ELEM_NON_TRANS)
          SET_COMP ("stop_bits",     STOP_1_BIT)
          SET_COMP ("data_bits",     DATA_8_BIT)
          SET_COMP ("parity",        PARITY_NONE)
          SET_COMP ("flow_control",  NO_FLOW_CONTROL)
          SET_COMP ("modem_type",    MT_V32)
ENDSTRUCT

/* bearer service transparent data 9600 */
 BEGIN_PSTRUCT ("bcpara", S_BS_DAT_9600_ASY_TRA)
          SET_COMP ("rate",          UR_9_6_KBIT)
          SET_COMP ("bearer_serv",   BEARER_SERV_ASYNC)
          SET_COMP ("conn_elem",     CONN_ELEM_TRANS)
          SET_COMP ("stop_bits",     STOP_1_BIT)
          SET_COMP ("data_bits",     DATA_8_BIT)
          SET_COMP ("parity",        PARITY_NONE)
          SET_COMP ("flow_control",  NO_FLOW_CONTROL)
          SET_COMP ("modem_type",    MT_NONE)
ENDSTRUCT

/* bearer service non-transparent data 9600 */
 BEGIN_PSTRUCT ("bcpara", S_BS_DAT_9600_ASY_NTRA)
          SET_COMP ("rate",          UR_9_6_KBIT)
          SET_COMP ("bearer_serv",   BEARER_SERV_ASYNC)
          SET_COMP ("conn_elem",     CONN_ELEM_NON_TRANS)
          SET_COMP ("stop_bits",     STOP_1_BIT)
          SET_COMP ("data_bits",     DATA_8_BIT)
          SET_COMP ("parity",        PARITY_NONE)
          SET_COMP ("flow_control",  NO_FLOW_CONTROL)
          SET_COMP ("modem_type",    MT_NONE)
ENDSTRUCT

/* bearer service default */
 BEGIN_PSTRUCT ("bcpara", S_BS_DEF)
                SET_COMP ("rate",                     UR_9_6_KBIT)
                SET_COMP ("bearer_serv",              BEARER_SERV_FAX)
                SET_COMP ("conn_elem",                  CONN_ELEM_TRANS)
                SET_COMP ("stop_bits",                  STOP_1_BIT)
                SET_COMP ("data_bits",                  DATA_8_BIT)
                SET_COMP ("parity",                     PARITY_NONE)
                SET_COMP ("flow_control",               NO_FLOW_CONTROL)
                SET_COMP ("modem_type",                 MT_NONE)
ENDSTRUCT

/* bearer service transparent data prefer 14400 */
 BEGIN_PSTRUCT ("bcpara", S_BS_DAT_14400_ASY_BTP)
                SET_COMP ("rate",                       UR_14_4_KBIT)
                SET_COMP ("bearer_serv",                BEARER_SERV_ASYNC)
                SET_COMP ("conn_elem",                  CONN_ELEM_TRANS_PREF)
                SET_COMP ("stop_bits",                  STOP_1_BIT)
                SET_COMP ("data_bits",                  DATA_8_BIT)
                SET_COMP ("parity",                     PARITY_NONE)
                SET_COMP ("flow_control",               NO_FLOW_CONTROL)
                SET_COMP ("modem_type",                 MT_NONE)
ENDSTRUCT

/* bearer service transparent data 14400 V32 */
 BEGIN_PSTRUCT ("bcpara", S_BS_DAT_14400_ASY_TRA_V34)
                SET_COMP ("rate",                       UR_14_4_KBIT)
                SET_COMP ("bearer_serv",                BEARER_SERV_ASYNC)
                SET_COMP ("conn_elem",                  CONN_ELEM_TRANS)
                SET_COMP ("stop_bits",                  STOP_1_BIT)
                SET_COMP ("data_bits",                  DATA_8_BIT)
                SET_COMP ("parity",                     PARITY_NONE)
                SET_COMP ("flow_control",               NO_FLOW_CONTROL)
                SET_COMP ("modem_type",                 MT_V34)
ENDSTRUCT

/* calling party address */
 BEGIN_PSTRUCT ("calling_party", S_CLG_PARTY)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("present",                    PRES_PRES_ALLOW)
                SET_COMP ("screen",                     SCREEN_IND_NOT_PRES)
                SET_COMP ("c_num",                      LA_CLG_NUM)
                SET_COMP ("num",                        A_CLG_NUM)
ENDSTRUCT

/* calling party sub address */
 BEGIN_PSTRUCT ("calling_party_sub", S_CLG_PARTY_SUB)
                SET_COMP ("tos",                        TOS_NOT_PRES)
                SET_COMP ("odd_even",                   OE_EVEN)
                SET_COMP ("c_subaddr",                  NUM_0)
                SKIP_COMP ("subaddr")
ENDSTRUCT

/* calling party emergency address */
 BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG112)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("present",                    PRES_PRES_ALLOW)
                SET_COMP ("screen",                     SCREEN_IND_NOT_PRES)
```

```
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG112)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG000)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG000)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG08)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG08)
            SET_COMP ("num",                      A_CLG_EMERG08)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG110)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG110)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG118)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG118)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG119)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG119)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG911)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
            SET_COMP ("c_num",                    LA_CLG_EMERG)
            SET_COMP ("num",                      A_CLG_EMERG911)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_EMERG999)
            SET_COMP ("ton",                      TON_UNKNOWN)
            SET_COMP ("npi",                      NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("present",                  PRES_PRES_ALLOW)
            SET_COMP ("screen",                   SCREEN_IND_NOT_PRES)
```

```
                SET_COMP ("c_num",                      LA_CLG_EMERG)
                SET_COMP ("num",                        A_CLG_EMERG999)
ENDSTRUCT
BEGIN_PSTRUCT ("calling_party", S_CLG_NOEMERG999099)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("present",                    PRES_PRES_ALLOW)
                SET_COMP ("screen",                     SCREEN_IND_NOT_PRES)
                SET_COMP ("c_num",                      LA_CLG_NOEMERG)
                SET_COMP ("num",                        A_CLG_NOEMERG999099)
ENDSTRUCT

/* calling party emergency sub address */
 BEGIN_PSTRUCT ("calling_party_sub", S_CLG_EMERG_SUB)
                SET_COMP ("tos",                        TOS_NOT_PRES)
                SET_COMP ("odd_even",                   OE_EVEN)
                SET_COMP ("c_subaddr",                  NUM_0)
                SKIP_COMP ("subaddr")
ENDSTRUCT

/* called party address national*/
 BEGIN_PSTRUCT ("called_party", S_CLD_PARTY)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("c_called_num",               LA_CLD_NUM)
                SET_COMP ("called_num",                 A_CLD_NUM)
ENDSTRUCT

/* called party address national*/
 BEGIN_PSTRUCT ("called_party", S_CLD_PARTY_2)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_UNKNOW)
                SET_COMP ("c_called_num",               LA_CLD_NUM)
                SET_COMP ("called_num",                 A_CLD_NUM)
ENDSTRUCT

/* called party emrgency address*/
 BEGIN_PSTRUCT ("called_party", S_CLD_EMERG112)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("c_called_num",               LA_CLD_EMERG)
                SET_COMP ("called_num",                 A_CLD_EMERG112)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG000)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("c_called_num",               LA_CLD_EMERG)
                SET_COMP ("called_num",                 A_CLD_EMERG000)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG08)
                SET_COMP ("ton",                        TON_UNKNOWN)
                SET_COMP ("npi",                        NPI_ISDN_TEL_NUMB_PLAN)
                SET_COMP ("c_called_num",               LA_CLD_EMERG08)
                SET_COMP ("called_num",                 A_CLD_EMERG08)
ENDSTRUCT
```

```
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG110)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_EMERG)
            SET_COMP ("called_num",             A_CLD_EMERG110)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG118)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_EMERG)
            SET_COMP ("called_num",             A_CLD_EMERG118)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG119)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_EMERG)
            SET_COMP ("called_num",             A_CLD_EMERG119)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG911)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_EMERG)
            SET_COMP ("called_num",             A_CLD_EMERG911)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_EMERG999)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_EMERG)
            SET_COMP ("called_num",             A_CLD_EMERG999)
ENDSTRUCT
BEGIN_PSTRUCT ("called_party", S_CLD_NOEMERG999099)
            SET_COMP ("ton",                    TON_UNKNOWN)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_NOEMERG)
            SET_COMP ("called_num",             A_CLD_NOEMERG999099)
ENDSTRUCT

/* called party address international*/
 BEGIN_PSTRUCT ("called_party", S_CLD_PARTY_INT)
            SET_COMP ("ton",                    TON_INT_NUMB)
            SET_COMP ("npi",                    NPI_ISDN_TEL_NUMB_PLAN)
            SET_COMP ("c_called_num",           LA_CLD_NUM_INT)
            SET_COMP ("called_num",             A_CLD_NUM_INT)
ENDSTRUCT

/* called party sub address */
 BEGIN_PSTRUCT ("called_party_sub", S_CLD_PARTY_SUB)
            SET_COMP ("tos",                    TOS_NOT_PRES)
            SET_COMP ("odd_even",               OE_EVEN)
            SET_COMP ("c_subaddr",              NUM_0)
            SKIP_COMP ("subaddr")
ENDSTRUCT

/* called party emergency sub address */
 BEGIN_PSTRUCT ("called_party_sub", S_CLD_EMERG_SUB)
            SET_COMP ("tos",                    TOS_NOT_PRES)
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                SET_COMP ("odd_even",                OE_EVEN)
                SET_COMP ("c_subaddr",               NUM_0)
                SKIP_COMP ("subaddr")
ENDSTRUCT

/* forward advice of charge info */
 BEGIN_PSTRUCT ("fac_inf", S_FAC_AOC)
                SET_COMP ("l_fac",                   LA_FAC_AOC)
                SET_COMP ("o_fac",                   NUM_0)
                SET_COMP ("fac",                     A_FAC_AOC)
ENDSTRUCT

/* speech full rate */
 BEGIN_PSTRUCT ("chm", S_CHN_SPEECH)
                SET_COMP ("ch_type",                 CH_TCH_F)
                SET_COMP ("ch_mode",                 CHM_SPEECH)
ENDSTRUCT

/* data full rate 9600 */
 BEGIN_PSTRUCT ("chm", S_CHN_FULL_9600)
                SET_COMP ("ch_type",                 CH_TCH_F)
                SET_COMP ("ch_mode",                 CHM_DATA_9_6)
ENDSTRUCT

/* DCS frame */
 BEGIN_PSTRUCT ("dcs", S_DCS)
                SKIP_COMP ("v8")
                SKIP_COMP ("n_byte")
                SKIP_COMP ("ready_tx_fax")
                SKIP_COMP ("rec_fax_op")
                SKIP_COMP ("data_sig_rate")
                SKIP_COMP ("R8_lines_pels")
                SKIP_COMP ("two_dim_coding")
                SKIP_COMP ("rec_width")
                SKIP_COMP ("max_rec_len")
                SKIP_COMP ("min_scan_time")
                SKIP_COMP ("uncomp_mode")
                SKIP_COMP ("err_corr_mode")
                SKIP_COMP ("frame_size")
                SKIP_COMP ("t6_coding")
                SKIP_COMP ("R8_lines")
                SKIP_COMP ("r_300_pels")
                SKIP_COMP ("R16_lines_pels")
                SKIP_COMP ("resolution_type")
                SKIP_COMP ("i_res_pref")
                SKIP_COMP ("m_res_pref")
                SKIP_COMP ("min_scan_time_hr")
                SKIP_COMP ("sel_polling")
                SKIP_COMP ("subaddr")
                SKIP_COMP ("password")
                SKIP_COMP ("ready_tx_doc")
                SKIP_COMP ("bft")
                SKIP_COMP ("dtm")
                SKIP_COMP ("edi")
                SKIP_COMP ("btm")
                SKIP_COMP ("ready_tx_mixed")
                SKIP_COMP ("char_mode")
                SKIP_COMP ("mixed_mode")
                SKIP_COMP ("proc_mode_26")
                SKIP_COMP ("dig_network_cap")
                SKIP_COMP ("duplex")
                SKIP_COMP ("jpeg")
                SKIP_COMP ("full_colour")
                SKIP_COMP ("huffman_tables")
                SKIP_COMP ("r_12_bits_pel_comp")
                SKIP_COMP ("no_subsamp")
                SKIP_COMP ("cust_illum")
                SKIP_COMP ("cust_gamut")
                SKIP_COMP ("na_letter")
                SKIP_COMP ("na_legal")
                SKIP_COMP ("sing_prog_seq_coding_basic")
                SKIP_COMP ("sing_prog_seq_coding_L0")
ENDSTRUCT

/* DIS frame */
 BEGIN_PSTRUCT ("dis", S_DIS)
                SKIP_COMP ("v8")
                SKIP_COMP ("n_byte")
                SKIP_COMP ("ready_tx_fax")
                SKIP_COMP ("rec_fax_op")
                SKIP_COMP ("data_sig_rate")
                SKIP_COMP ("R8_lines_pels")
                SKIP_COMP ("two_dim_coding")
                SKIP_COMP ("rec_width")
                SKIP_COMP ("max_rec_len")
                SKIP_COMP ("min_scan_time")
                SKIP_COMP ("uncomp_mode")
                SKIP_COMP ("err_corr_mode")
                SKIP_COMP ("frame_size")
                SKIP_COMP ("t6_coding")
                SKIP_COMP ("R8_lines")
                SKIP_COMP ("r_300_pels")
                SKIP_COMP ("R16_lines_pels")
                SKIP_COMP ("resolution_type")
                SKIP_COMP ("i_res_pref")
                SKIP_COMP ("m_res_pref")
                SKIP_COMP ("min_scan_time_hr")
                SKIP_COMP ("sel_polling")
                SKIP_COMP ("subaddr")
                SKIP_COMP ("password")
                SKIP_COMP ("ready_tx_doc")
                SKIP_COMP ("bft")
                SKIP_COMP ("dtm")
                SKIP_COMP ("edi")
                SKIP_COMP ("btm")
                SKIP_COMP ("ready_tx_mixed")
                SKIP_COMP ("char_mode")
                SKIP_COMP ("mixed_mode")
                SKIP_COMP ("proc_mode_26")
                SKIP_COMP ("dig_network_cap")
                SKIP_COMP ("duplex")
                SKIP_COMP ("jpeg")
```

```
                    SKIP_COMP ("full_colour")
                    SKIP_COMP ("huffman_tables")
                    SKIP_COMP ("r_12_bits_pel_comp")
                    SKIP_COMP ("no_subsamp")
                    SKIP_COMP ("cust_illum")
                    SKIP_COMP ("cust_gamut")
                    SKIP_COMP ("na_letter")
                    SKIP_COMP ("na_legal")
                    SKIP_COMP ("sing_prog_seq_coding_basic")
                    SKIP_COMP ("sing_prog_seq_coding_L0")
ENDSTRUCT

/* DTC frame */
 BEGIN_PSTRUCT ("dtc", S_DTC)
                    SKIP_COMP ("v8")
                    SKIP_COMP ("n_byte")
                    SKIP_COMP ("ready_tx_fax")
                    SKIP_COMP ("rec_fax_op")
                    SKIP_COMP ("data_sig_rate")
                    SKIP_COMP ("R8_lines_pels")
                    SKIP_COMP ("two_dim_coding")
                    SKIP_COMP ("rec_width")
                    SKIP_COMP ("max_rec_len")
                    SKIP_COMP ("min_scan_time")
                    SKIP_COMP ("uncomp_mode")
                    SKIP_COMP ("err_corr_mode")
                    SKIP_COMP ("frame_size")
                    SKIP_COMP ("t6_coding")
                    SKIP_COMP ("R8_lines")
                    SKIP_COMP ("r_300_pels")
                    SKIP_COMP ("R16_lines_pels")
                    SKIP_COMP ("resolution_type")
                    SKIP_COMP ("i_res_pref")
                    SKIP_COMP ("m_res_pref")
                    SKIP_COMP ("min_scan_time_hr")
                    SKIP_COMP ("sel_polling")
                    SKIP_COMP ("subaddr")
                    SKIP_COMP ("password")
                    SKIP_COMP ("ready_tx_doc")
                    SKIP_COMP ("bft")
                    SKIP_COMP ("dtm")
                    SKIP_COMP ("edi")
                    SKIP_COMP ("btm")
                    SKIP_COMP ("ready_tx_mixed")
                    SKIP_COMP ("char_mode")
                    SKIP_COMP ("mixed_mode")
                    SKIP_COMP ("proc_mode_26")
                    SKIP_COMP ("dig_network_cap")
                    SKIP_COMP ("duplex")
                    SKIP_COMP ("jpeg")
                    SKIP_COMP ("full_colour")
                    SKIP_COMP ("huffman_tables")
                    SKIP_COMP ("r_12_bits_pel_comp")
                    SKIP_COMP ("no_subsamp")
                    SKIP_COMP ("cust_illum")
                    SKIP_COMP ("cust_gamut")
```

```
                SKIP_COMP ("na_letter")
                SKIP_COMP ("na_legal")
                SKIP_COMP ("sing_prog_seq_coding_basic")
                SKIP_COMP ("sing_prog_seq_coding_L0")
ENDSTRUCT

/* HDLC frame */
 BEGIN_PSTRUCT ("hdlc_info", S_HDLC_DCS)
                SET_COMP ("crp",                NUM_0)
                SET_COMP ("c_pwd",              NUM_0)
                SKIP_COMP ("pwd")
                SET_COMP ("c_sub",              NUM_0)
                SKIP_COMP ("sub")
                SET_COMP ("c_sep",              NUM_0)
                SKIP_COMP ("sep")
                SET_COMP ("c_nsc",              NUM_0)
                SKIP_COMP ("nsc")
                SET_COMP ("c_nsf",              NUM_0)
                SKIP_COMP ("nsf")
                SET_COMP ("c_tsi",              NUM_0)
                SKIP_COMP ("tsi")
                SET_COMP ("c_cig",              NUM_0)
                SKIP_COMP ("cig")
                SET_COMP ("c_csi",              NUM_0)
                SKIP_COMP ("csi")
                SET_COMP ("c_nss",              NUM_0)
                SKIP_COMP ("nss")
                SET_COMP ("v_dis",              NUM_0)
                SKIP_COMP ("dis")
                SET_COMP ("v_dcs",              NUM_1)
                SET_COMP ("dcs",                S_DCS)
                SET_COMP ("v_dtc",              NUM_0)
                SKIP_COMP ("dtc")
ENDSTRUCT
BEGIN_PSTRUCT ("hdlc_info", S_HDLC_DIS)
                SET_COMP ("crp",                NUM_0)
                SET_COMP ("c_pwd",              NUM_0)
                SKIP_COMP ("pwd")
                SET_COMP ("c_sub",              NUM_0)
                SKIP_COMP ("sub")
                SET_COMP ("c_sep",              NUM_0)
                SKIP_COMP ("sep")
                SET_COMP ("c_nsc",              NUM_0)
                SKIP_COMP ("nsc")
                SET_COMP ("c_nsf",              NUM_0)
                SKIP_COMP ("nsf")
                SET_COMP ("c_tsi",              NUM_0)
                SKIP_COMP ("tsi")
                SET_COMP ("c_cig",              NUM_0)
                SKIP_COMP ("cig")
                SET_COMP ("c_csi",              NUM_0)
                SKIP_COMP ("csi")
                SET_COMP ("c_nss",              NUM_0)
                SKIP_COMP ("nss")
                SET_COMP ("v_dis",              NUM_1)
                SET_COMP ("dis",                S_DIS)
                SET_COMP ("v_dcs",                               NUM_0)
                SKIP_COMP ("dcs")
                SET_COMP ("v_dtc",                               NUM_0)
                SKIP_COMP ("dtc")
ENDSTRUCT

/* bearer service non transparent data 9600 */
    BEGIN_PSTRUCT ("bcpara", S_BS_DAT_9600_ASY_NON_TRA)
          SET_COMP ("rate",            UR_9_6_KBIT)
          SET_COMP ("bearer_serv",  BEARER_SERV_ASYNC)
          SET_COMP ("conn_elem",     CONN_ELEM_NON_TRANS)
          SET_COMP ("stop_bits",      STOP_1_BIT)
          SET_COMP ("data_bits",      DATA_8_BIT)
          SET_COMP ("parity",          PARITY_NONE)
          SET_COMP ("flow_control",  NO_FLOW_CONTROL)
          SET_COMP ("modem_type",  MT_NONE)
   ENDSTRUCT

/* DIS frame – 9600 bps */
    BEGIN_PSTRUCT ("dis", S_DIS_9600)
          SKIP_COMP ("v8")
          SKIP_COMP ("n_byte")
          SKIP_COMP ("ready_tx_fax")
          SKIP_COMP ("rec_fax_op")
          SET_COMP ("data_sig_rate", NUM_8)
          SET_COMP ("R8_lines_pels", NUM_1)
          SKIP_COMP ("two_dim_coding")
          SKIP_COMP ("rec_width")
          SET_COMP ("max_rec_len", NUM_1)
          SET_COMP ("min_scan_time", NUM_7)
          SKIP_COMP ("uncomp_mode")
          SKIP_COMP ("err_corr_mode")
          SKIP_COMP ("frame_size")
          SKIP_COMP ("t6_coding")
          SKIP_COMP ("R8_lines")
          SKIP_COMP ("r_300_pels")
          SKIP_COMP ("R16_lines_pels")
          SKIP_COMP ("resolution_type")
          SKIP_COMP ("i_res_pref")
          SKIP_COMP ("m_res_pref")
          SKIP_COMP ("min_scan_time_hr")
          SKIP_COMP ("sel_polling")
          SKIP_COMP ("subaddr")
          SKIP_COMP ("password")
          SKIP_COMP ("ready_tx_doc")
          SKIP_COMP ("bft")
          SKIP_COMP ("dtm")
          SKIP_COMP ("edi")
          SKIP_COMP ("btm")
          SKIP_COMP ("ready_tx_mixed")
          SKIP_COMP ("char_mode")
          SKIP_COMP ("mixed_mode")
          SKIP_COMP ("proc_mode_26")
          SKIP_COMP ("dig_network_cap")
          SKIP_COMP ("duplex")
          SKIP_COMP ("jpeg")
```

```
            SKIP_COMP ("full_colour")
            SKIP_COMP ("huffman_tables")
            SKIP_COMP ("r_12_bits_pel_comp")
            SKIP_COMP ("no_subsamp")
            SKIP_COMP ("cust_illum")
            SKIP_COMP ("cust_gamut")
            SKIP_COMP ("na_letter")
            SKIP_COMP ("na_legal")
            SKIP_COMP ("sing_prog_seq_coding_basic")
            SKIP_COMP ("sing_prog_seq_coding_L0")
     ENDSTRUCT

BEGIN_PSTRUCT ("hdlc_info", S_HDLC_DIS_9600)
            SET_COMP ("crp", NUM_0)
            SET_COMP ("c_pwd",          NUM_0)
            SKIP_COMP ("pwd")
            SET_COMP ("c_sub",          NUM_0)
            SKIP_COMP ("sub")
            SET_COMP ("c_sep",          NUM_0)
            SKIP_COMP ("sep")
            SET_COMP ("c_nsc",          NUM_0)
            SKIP_COMP ("nsc")
            SET_COMP ("c_nsf",          NUM_0)
            SKIP_COMP ("nsf")
            SET_COMP ("c_tsi",          NUM_0)
            SKIP_COMP ("tsi")
            SET_COMP ("c_cig",          NUM_0)
            SKIP_COMP ("cig")
            SET_COMP ("c_csi",          NUM_0)
            SKIP_COMP ("csi")
            SET_COMP ("c_nss",          NUM_0)
            SKIP_COMP ("nss")
            SET_COMP ("v_dis",          NUM_1)
            SET_COMP ("dis", S_DIS_9600)
            SET_COMP ("v_dcs",          NUM_0)
            SKIP_COMP ("dcs")
            SET_COMP ("v_dtc",          NUM_0)
            SKIP_COMP ("dtc")
     ENDSTRUCT

BEGIN_PSTRUCT ("net_ctrl", S_NET_CTRL)
            SET_COMP ("spgc_ccch_sup",          NUM_2)
            SET_COMP ("priority_access_thr",    NUM_2)
     ENDSTRUCT

BEGIN_PSTRUCT ("em_imeisv", S_IMEI)
            SET_COMP ("ident_type",     NUM_1)
            SET_COMP ("odd_even",       NUM_1)
            SET_COMP ("v_ident_dig",NUM_1)
            SET_COMP ("c_ident_dig",NUM_2)
            SET_COMP ("ident_dig",      A_IDENT_DIG)
     ENDSTRUCT

BEGIN_PSTRUCT ("em_imsi", S_IMSI)
            SET_COMP ("ident_type",     NUM_1)
            SET_COMP ("odd_even",       NUM_1)
            SET_COMP ("v_ident_dig",NUM_1)
            SET_COMP ("c_ident_dig",NUM_2)
            SET_COMP ("ident_dig",      A_IDENT_DIG)
     ENDSTRUCT

BEGIN_PSTRUCT ("hop_chn", S_HOP_CHN)
            SET_COMP ("ma",             A_MA)
            SET_COMP ("ma2",            A_MA2)
            SET_COMP ("v_start",        NUM_0)
     ENDSTRUCT

BEGIN_PSTRUCT ("meas_cap", S_MEAS_CAP)
            SET_COMP ("sw_time",        NUM_1)
            SET_COMP ("sws_time",       NUM_1)
            SET_COMP ("dummy1",         NUM_3)
            SET_COMP ("dummy2",         NUM_4)
ENDSTRUCT

BEGIN_PSTRUCT ("classm2", S_CLASSM2)
            SET_COMP ("rev_lev",        NUM_1)
            SET_COMP ("es_ind",         NUM_2)
            SET_COMP ("a5_1",           NUM_3)
            SET_COMP ("rf_pow_cap",NUM_4)
            SET_COMP ("ps_cap",         NUM_5)
            SET_COMP ("ss_screen",      NUM_6)
            SET_COMP ("sm_cap",         NUM_7)
            SET_COMP ("freq_cap",       NUM_8)
            SET_COMP ("class_3",        NUM_9)
            SET_COMP ("cmsp",           NUM_1)
            SET_COMP ("a5_3",           NUM_2)
            SET_COMP ("a5_2",           NUM_3)
     ENDSTRUCT

BEGIN_PSTRUCT ("classm3", S_CLASSM3)
            SET_COMP ("mb_sub",         NUM_1)
            SET_COMP ("a5_7",           NUM_2)
            SET_COMP ("a5_6",           NUM_3)
            SET_COMP ("a5_5",           NUM_4)
            SET_COMP ("a5_4",           NUM_5)
            SET_COMP ("v_radio_cap_2",          NUM_1)
            SET_COMP ("radio_cap_2",  NUM_2)
            SET_COMP ("v_radio_cap_1",          NUM_1)
            SET_COMP ("radio_cap_1",  NUM_3)
            SET_COMP ("v_r_support",  NUM_1)
            SET_COMP ("r_support",              NUM_4)
            SET_COMP ("v_m_s_class", NUM_1)
            SET_COMP ("m_s_class",              NUM_5)
            SET_COMP ("ucs2_treat",             NUM_6)
            SET_COMP ("ext_meas_cap",           NUM_7)
            SET_COMP ("v_meas_cap", NUM_1)
            SET_COMP ("meas_cap",               S_MEAS_CAP)
ENDSTRUCT

/* activate CFU Voice FIE 31.2.1.3 */
BEGIN_PSTRUCT ("fac_inf", A_FAC_KSD_CFU_ACT_ALL)
                    SET_COMP ("l_fac", 8*13)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_KSD_CFU_ACT_ALL_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_KSD_CFU_ACT_ALL_CONTENT, 13)
            0xA1, 0x0B, 0x02, 0x01, 0x00, 0x02, 0x01, 0x0C, 0x30, 0x03, 0x04, 0x01, 0x21
ENDARRAY

/* result activate CFU Voice FIE 31.2.1.3 */
BEGIN_PSTRUCT ("fac_inf", A_FAC_KSD_CFU_ACT_RES)
            SET_COMP ("l_fac", 0x00D0)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_KSD_CFU_ACT_RES_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_KSD_CFU_ACT_RES_CONTENT, 26)
            0xA2, 0x18, 0x02, 0x01, 0x00, 0x30, 0x80, 0x02, 0x01, 0x0C, 0xA0, 0x80, 0x04, 0x01, 0x21, 0x30, 0x05, 0x30, 0x03,
0x84, 0x01, 0x07, 0x00, 0x00, 0x00, 0x00
ENDARRAY

/* erase All Fwd Data */
BEGIN_PSTRUCT ("fac_inf", A_FAC_KSD_CFU_ERA_D)
            SET_COMP ("l_fac", 16 * 8)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_KSD_CFU_ERA_D_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_KSD_CFU_ERA_D_CONTENT, 16)
            0xA1, 0x0E, 0x02, 0x01, 0x02, 0x02, 0x01, 0x0B, 0x30, 0x06, 0x04, 0x01, 0x20, 0x82, 0x01, 0x00
ENDARRAY

/* result erase All Fwd Data */
BEGIN_PSTRUCT ("fac_inf", A_FAC_KSD_CFU_ERA_D_RES)
            SET_COMP ("l_fac", 18 * 8)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_KSD_CFU_ERA_D_RES_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_KSD_CFU_ERA_D_RES_CONTENT, 18)
            0xA2, 0x10, 0x02, 0x01, 0x00, 0x30, 0x0B, 0x02, 0x01, 0x0B, 0x30, 0x06, 0x04, 0x01, 0x00, 0x82, 0x01, 0x00
ENDARRAY

/* activate CCFC CFU Voice/Fax FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCFC_CFU_V)
            SET_COMP ("l_fac", 0x0080)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_CCFC_CFU_V_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_CCFC_CFU_V_CONTENT, 16)
            0xA1, 0x0E, 0x02, 0x01, 0x00, 0x02, 0x01, 0x0C, 0x30, 0x06, 0x04, 0x01, 0x21, 0x83, 0x01, 0x10
ENDARRAY

/* activate CCFC CFU Data FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCFC_CFU_D)
            SET_COMP ("l_fac", 0x0080)
            SET_COMP ("o_fac", 0x0000)
            SET_COMP ("fac", A_FAC_CCFC_CFU_D_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_CCFC_CFU_D_CONTENT, 16)
            0xA1, 0x0E, 0x02, 0x01, 0x01, 0x02, 0x01, 0x0C, 0x30, 0x06, 0x04, 0x01, 0x21, 0x82, 0x01, 0x00
```

```
ENDARRAY


/* interrogate result CCFC CFU FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCFC_CFU_V_RES)
                SET_COMP ("l_fac", 23 * 8)
                SET_COMP ("o_fac", 0x0000)
                SET_COMP ("fac", A_FAC_CCFC_CFU_V_RES_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_CCFC_CFU_V_RES_CONTENT,23)
                0xA2, 0x15, /* Return Result Component Tag, Length */
                0x02, 0x01, 0x00, /* Invoke ID Tag, Length, Value */
                0x30, 0x10, /* Sequence Tag, Length */
                0x02, 0x01, 0x0C, /* Operation Code Tag (ActivateSS), Length, Value */
                /* begin of parameters */
                0xA0, 0x0B, /* forwardingFeatureList */
                0x04,0x01,0x21, /* ss code CFU */
                0x30, 0x06, /* Sequence Tag, Length */
                0x83, 0x01, 0x10, /* TeleService Tag, Length, Value (all speech transmission services) */
                0x84, 0x01, 0x07 /* ss-Status Tag, Length, Value (provisioned) */
ENDARRAY

/* interrogate result CCFC CFU FIE */
BEGIN_PSTRUCT ("fac_inf", A_FAC_CCFC_CFU_D_RES)
                SET_COMP ("l_fac", 23 * 8)
                SET_COMP ("o_fac", 0x0000)
                SET_COMP ("fac", A_FAC_CCFC_CFU_D_RES_CONTENT)
ENDSTRUCT
BEGINARRAY_PART (A_FAC_CCFC_CFU_D_RES_CONTENT,23)
                0xA2, 0x15, /* Return Result Component Tag, Length */
                0x02, 0x01, 0x00, /* Invoke ID Tag, Length, Value */
                0x30, 0x10, /* Sequence Tag, Length */
                0x02, 0x01, 0x0C, /* Operation Code Tag (ActivateSS), Length, Value */
                /* begin of parameters */
                0xA0, 0x0B, /* forwardingFeatureList */
                0x04,0x01,0x21, /* ss code CFU */
                0x30, 0x06, /* Sequence Tag, Length */
                0x82, 0x01, 0x10, /* BearerService Tag, Length, Value (all data CDA services) */
                0x84, 0x01, 0x07 /* ss-Status Tag, Length, Value */
ENDARRAY

/* SMS-DELIVER */
/* SA_12345, OA_9876, PID_SM_TYPE_0, DCS_DEF_ALPH, VP_A9801071234564 (TP-SCTS)
  --- empty user data ( " " )--- */
BYTE L_DELIVER_01 21
BEGIN_PSTRUCT ("sms_sdu", DELIVER_01)
          SET_COMP ("l_buf",          L_DELIVER_01*8)
          SET_COMP ("o_buf",          0x00)
          SET_COMP ("buf", D_DELIVER_01)
ENDSTRUCT
BEGINARRAY_PART(D_DELIVER_01, L_DELIVER_01)
          0x04, 0x81, 0x21, 0x43, 0xF5,
          0x00, 0x04, 0xD1, 0x11, 0x00,
          0x40, 0x00, 0x89, 0x10, 0x70, 0x21, 0x43, 0x65, 0x40,
          0x01, 0x20
ENDARRAY
```

```
/* SA_12345, OA_987654, PID_SM_TYPE_0, DCS_DEF_ALPH, VP_A9801071234564 (TP-SCTS),
--- empty user data ( " " )--- */
BYTE L_DELIVER_02 21
BEGIN_PSTRUCT ("sms_sdu", DELIVER_02)
        SET_COMP ("l_buf",          L_DELIVER_02*8)
        SET_COMP ("o_buf",          0x00)
        SET_COMP ("buf", D_DELIVER_02)
ENDSTRUCT
BEGINARRAY_PART(D_DELIVER_02, L_DELIVER_02)
        0x04, 0x81, 0x21, 0x43, 0xF5,
        0x00, 0x04, 0xD1, 0x11, 0x01,
        0x40, 0x00, 0x89, 0x10, 0x70, 0x21, 0x43, 0x65, 0x40,
        0x01, 0x20
ENDARRAY

/* SA_12345, OA_9876, PID_SM_TYPE_0, DCS_DEF_ALPH, VP_A9801071234564 (TP-SCTS)
 --- empty user data ( " " )--- */
BYTE L_DELIVER_01_CLEAR 21
BEGIN_PSTRUCT ("sms_sdu", DELIVER_01_CLEAR)
        SET_COMP ("l_buf",          L_DELIVER_01_CLEAR*8)
        SET_COMP ("o_buf",          0x00)
        SET_COMP ("buf", D_DELIVER_01_CLEAR)
ENDSTRUCT
BEGINARRAY_PART(D_DELIVER_01_CLEAR, L_DELIVER_01_CLEAR)
        0x04, 0x81, 0x21, 0x43, 0xF5,
        0x00, 0x04, 0xD1, 0x10, 0x00,
        0x40, 0x00, 0x89, 0x10, 0x70, 0x21, 0x43, 0x65, 0x40,
        0x01, 0x20
ENDARRAY
```

4 TEST CASES

4.1 Routing (internal) (ACI001 - ACI010)

4.1.1 ACI001: Setup the Routing and the PCO view for the ACI test, and set ACI to transparent mode

Description:

Routings for the ACI tests are set.

Preamble:

None

```
    APL                            ACI                            PS
      |                              |                             |
COMMAND (TAP RESET)
COMMAND (CC RESET)
COMMAND (MM RESET)
COMMAND (SIM RESET)
COMMAND (SS RESET)
COMMAND (MMI RESET)
COMMAND (SMS RESET)
COMMAND (RR RESET)
 COMMAND (PL RESET)
       |                             |                             |
COMMAND (TAP REDIRECT CLEAR)
COMMAND (CC REDIRECT CLEAR)
COMMAND (MM REDIRECT CLEAR)
COMMAND (SIM REDIRECT CLEAR)
COMMAND (SS REDIRECT CLEAR)
COMMAND (MMI REDIRECT CLEAR)
COMMAND (SMS REDIRECT CLEAR)
COMMAND (RR REDIRECT CLEAR)
 COMMAND (PL REDIRECT CLEAR)
       |                             |                             |
COMMAND (MMI REDIRECT CC TAP)
COMMAND (MMI REDIRECT MM TAP)
COMMAND (MMI REDIRECT SIM TAP)
COMMAND (MMI REDIRECT SS TAP)
COMMAND (MMI REDIRECT MMI TAP)
COMMAND (MMI REDIRECT SMS TAP)
COMMAND (MMI REDIRECT T30 TAP)
COMMAND (MMI REDIRECT L2R TAP)
COMMAND (MMI REDIRECT RA TAP)
COMMAND (MMI REDIRECT RR TAP)
 COMMAND (PL REDIRECT MMI NULL)
      |                              |                             |
COMMAND (TAP REDIRECT TAP MMI)
COMMAND (MMI REDIRECT MMI TAP)
      |                              |                             |
      |                              |                             |
```

Parametrization:

Primitive	Parameter	Value

History: 14.12.98 AK Initial

4.2 Initialisation (ACI011 - ACI020)

4.2.1 ACI010: Set error message format

Description:

set error messages to verbose

Preamble:

ACI001

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |       ACI_CMD_REQ        |                          |
     |     (cmd: +CMEE=2)       |                          |
     *=========================>*                          |
(2)  |       ACI_CMD_IND        |                          |
     |        (msg: OK)         |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CMEE_VERB)	
	cmd_seq	C_PLUS_CMEE_VERB
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 10.09.02 ACI Initial

4.2.2 ACI011: Power On

Description:

activate SIM card at power on

Preamble:

ACI010

```
    APL                        ACI                        PS
     |                          |                          |
(3)  |       ACI_CMD_REQ        |                          |
     |     (cmd: +CFUN=1)       |                          |
     *=========================>*                          |
(4)  |                          |     SIM_ACTIVATE_REQ     |
     |                          *=========================>*
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value

(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CFUN_FULL)
	cmd_seq	C_PLUS_CFUN_FULL
(4) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED

History:	10.08.98	ACI	Initial

4.2.3 ACI012: Power Off

Description:

synchronize SIM card at power off

Preamble:

ACI025

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: +COPS=2)       |                            |
     *==========================> *                            |
(2)  |                            |         MMR_NREG_REQ       |
     |                            *==========================> *
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COPS_DREG)
	cmd_seq	C_PLUS_COPS_DREG
(2) MMR_NREG_REQ		
	detach_cause	CS_SIM_REM

4.3 SIM Detection (ACI021 - ACI030)

4.3.1 ACI021: no SIM inserted

Description:

after activation of the SIM, it is detected that no SIM is available

Preamble:

ACI011

```
    APL                         ACI                        PS
     |                           |                          |
(1)  |                           |     SIM_ACTIVATE_CNF     |
     |                           *<========================*
(2)  |        ACI_CMD_IND        |                          |
     |         (msg: err)        |                          |
     *<========================*                            |
     |                           |                          |
```

Parametrization:

	Primitive	Parameter	Value
(1)	SIM_ACTIVATE_CNF		
		cause	SIM_CAUSE_CARD_REMOVED
		pin_cnt	NUM_0
		puk_cnt	NUM_0
		pin2_cnt	NUM_0
		puk2_cnt	NUM_0
		ec_code	NOT_USED
		pref_lang	NOT_USED
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERR_SIM_FATAL)
		cmd_seq	M_ERR_SIM_FATAL

History:	10.08.98	ACI	Initial

4.3.2 ACI022: SIM card blocked

Description:

after activation of the SIM, it is detected that the SIM is blocked

Preamble:

ACI011

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |                             |       SIM_ACTIVATE_CNF      |
      |                             *<===========================*
(2)   |         ACI_CMD_IND         |                             |
      |          (msg: err)         |                             |
      *<===========================*                             |
      |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	SIM_ACTIVATE_CNF		
		cause	SIM_CAUSE_PUK1_EXPECT
		pin_cnt	NUM_3
		puk_cnt	NUM_9
		pin2_cnt	NUM_3
		puk2_cnt	NUM_9
		ec_code	NOT_USED
		pref_lang	NOT_USED
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERR_SIM_BLCK)
		cmd_seq	M_ERR_SIM_BLCK

History: 10.08.98 ACI Initial

4.3.3 ACI023: PIN required

Description:

after activation of the SIM, it is detected that the PIN is required

Preamble:

ACI011

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |                            |       SIM_ACTIVATE_CNF      |
     |                            *<=========================== *
(2)  |         ACI_CMD_IND        |                             |
     |          (msg: err)        |                             |
     *<========================== *                             |
(3)  |         ACI_CMD_REQ        |                             |
     |      (cmd: +CPIN=1234)     |                             |
     * ==========================>*                             |
(4)  |                            |     SIM_VERIFY_PIN_REQ      |
     |                            *===========================> *
     |                            |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	SIM_ACTIVATE_CNF		
		cause	SIM_CAUSE_PIN1_EXPECT
		pin_cnt	NUM_3
		puk_cnt	NUM_9
		pin2_cnt	NUM_3
		puk2_cnt	NUM_9
		ec_code	NOT_USED
		pref_lang	NOT_USED
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERR_PIN_REQ)
		cmd_seq	M_ERR_PIN_REQ
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	
		NUM_ELEMENTS(C_PLUS_CPIN_1234)	
		cmd_seq	C_PLUS_CPIN_1234
(4)	SIM_VERIFY_PIN_REQ		
		source	SRC_MMI
		pin	A_PIN_1234
		pin_id	PHASE_2_PIN_1

History: 10.08.98 ACI Initial

4.3.4 ACI024: PIN not required

Description: ***SIMLOCK should not be defined for this testcase...!!!***
after activation of the SIM, it is detected that no PIN is required. The network registration is started. ciphering indication disabled (A) / enabled (B). Test case (C) operates with a E-Plus IMSI (mcc=0x262, mnc=0x03). These values are necessary for ALS testing.

Preamble:
ACI011

Variants: <A>....<C>

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |                             |      SIM_ACTIVATE_CNF       |
     |                             *<===========================*
(2)  |                             |     SIM_MMI_INSERT_IND      |
     |                             *<===========================*
(3)  |                             |        SIM_READ_REQ         |
     |                             *===========================>*
(4)  |                             |        SIM_READ_CNF         |
     |                             *<===========================*
(5)  |                             |        SIM_READ_REQ         |
     |                             *===========================>*
(6)  |                             |        SIM_READ_CNF         |
     |                             *<===========================*
(7)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<===========================*                              |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_ENABLED
	sim_serv	NOT_USED
<A>	imsi_field	NOT_USED
<B>	imsi_field	NOT_USED
<C>	imsi_field	IMSI_E_PLUS
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED

	access_acmmax	NOT_USED
	access_puct	NOT_USED
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(4) SIM_READ_CNF		
	datafield	SIM_ECC
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_ECC_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(6) SIM_READ_CNF		
	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_4
<A>	trans_data	A_AD_FIELD_CI_DISABLED
<B>	trans_data	A_AD_FIELD_CI_ENABLED
<C>	trans_data	A_AD_FIELD_CI_DISABLED
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	10.08.98	ACI	Initial
	25.04.02	DPI	Variant <C> added

4.3.5 ACI025: erroneous PIN entry

Description:

after that a PIN is required, a wrong PIN is entered

Preamble:

ACI023

```
    APL                             ACI                            PS
     |                               |                              |
(1)  |                               |     SIM_VERIFY_PIN_CNF       |
     |                               *<============================*
(2)  |         ACI_CMD_IND           |                              |
     |          (msg: err)           |                              |
     *<============================*                              |
     |                               |                              |
```

Parametrization:

Primitive	Parameter	Value

(1) SIM_VERIFY_PIN_CNF		
	cause	SIM_CAUSE_PIN1_EXPECT
	pin_id	PHASE_2_PIN_1
	pin_cnt	NUM_2
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD

History: 10.08.98 ACI Initial

4.3.6 ACI026: SIM blocked, due to invalid PIN entry

Description:

after illegal PIN entry no attempts are left which leads to a SIM blocking

Preamble:

ACI025

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |        ACI_CMD_REQ        |                            |
     |     (cmd: +CPIN=1234)     |                            |
     *=========================> *                            |
(2)  |                           |     SIM_VERIFY_PIN_REQ     |
     |                           *==========================> *
(3)  |                           |     SIM_VERIFY_PIN_CNF     |
     |                           *<========================== *
(4)  |        ACI_CMD_IND        |                            |
     |        (msg: err)         |                            |
     *<========================= *                            |
     |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_1234)
	cmd_seq	C_PLUS_CPIN_1234
(2) SIM_VERIFY_PIN_REQ		
	source	SRC_MMI
	pin	A_PIN_1234
	pin_id	PHASE_2_PIN_1
(3) SIM_VERIFY_PIN_CNF		
	cause	SIM_CAUSE_PIN1_EXPECT
	pin_id	PHASE_2_PIN_1
	pin_cnt	NUM_2
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10

Primitive	Parameter	Value
(4) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_WRONG_PWD)	
	cmd_seq	M_ERR_WRONG_PWD

History: 10.08.98 ACI Initial

4.3.7 ACI027: SIM removed/inserted

Description:

SIM is removed and inserted during power on

Preamble:

ACI024A

```
    APL                          ACI                           PS
      |                            |                            |
(1)   |                            |       SIM_REMOVE_IND       |
      |                            *<===========================*
(2)   |        ACI_CMD_REQ         |                            |
      |       (cmd: +CPIN?)        |                            |
      *===========================>*                            |
(3)   |                            |      SIM_ACTIVATE_REQ      |
      |                            *===========================>*
(4)   |                            |      SIM_ACTIVATE_CNF      |
      |                            *<===========================*
(5)   |        ACI_CMD_IND         |                            |
      |         (msg: err)         |                            |
      *<===========================*                            |
(6)   |                            |      SIM_ACTIVATE_CNF      |
      |                            *<===========================*
(7)   |        ACI_CMD_IND         |                            |
      |    (msg: %SIMINS: 11)      |                            |
      *<===========================*                            |
(8)   |        ACI_CMD_REQ         |                            |
      |       (cmd: +CPIN?)        |                            |
      *===========================>*                            |
(9)   |        ACI_CMD_IND         |                            |
      |      (msg: +CPIN: )        |                            |
      *<===========================*                            |
(10)  |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_REMOVE_IND		
	cause	SIM_NO_ERROR
(2) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

NUM_ELEMENTS(C_PLUS_CPIN_QUERY)	
cmd_seq	C_PLUS_CPIN_QUERY

(3) SIM_ACTIVATE_REQ

proc	SIM_INITIALISATION
mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(4) SIM_ACTIVATE_CNF

cause	SIM_CAUSE_CARD_REMOVED
pin_cnt	NUM_0
puk_cnt	NUM_0
pin2_cnt	NUM_0
puk2_cnt	NUM_0
ec_code	NOT_USED
pref_lang	NOT_USED

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_ERR_SIM_FATAL)
cmd_seq	M_ERR_SIM_FATAL

(6) SIM_ACTIVATE_CNF

cause	SIM_CAUSE_PIN1_EXPECT
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_SIMINS_ERR_11)
cmd_seq	M_PERCENT_SIMINS_ERR_11

(8) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_QUERY)
cmd_seq	C_PLUS_CPIN_QUERY

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPIN_PIN1)
cmd_seq	M_PLUS_CPIN_PIN1

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 10.08.98 ACI Initial

4.3.8 ACI028: PIN required (not entered)

Description:

after activation of the SIM, it is detected that the PIN is required

Preamble:

ACI011

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |                              |      SIM_ACTIVATE_CNF        |
     |                              *<=========================== *
(2)  |          ACI_CMD_IND         |                              |
     |          (msg: err)          |                              |
     *<=========================== *                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_CAUSE_PIN1_EXPECT
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_PIN_REQ)
	cmd_seq	M_ERR_PIN_REQ

History: 12.12.01 KGT Initial

4.3.9 ACI029: PIN not required (SIM: read SDN but no ECC and no CC control)

Description:

after activation of the SIM, it is detected that no PIN is required. The network registration is started. ciphering indication disabled (A) / enabled (B). There is no CC control in the SIM service table: should be so for test ACI207.

Preamble:

ACI011

Variants: <A>....<B>

```
     APL                          ACI                           PS
      |                            |                             |
(1)   |                            |      SIM_ACTIVATE_CNF       |
      |                            *<=========================== *
(2)   |                            |     SIM_MMI_INSERT_IND      |
      |                            *<=========================== *
(3)   |                            |        SIM_READ_REQ         |
      |                            *===========================> *
(4)   |                            |        SIM_READ_CNF         |
      |                            *<=========================== *
(5)   |                            |        SIM_READ_REQ         |
      |                            *===========================> *
(6)   |                            |        SIM_READ_CNF         |
      |                            *<=========================== *
(7)   |         ACI_CMD_IND        |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
(5)   |                            |      MNSMS_REPORT_IND       |
      |                            *<=========================== *
(6)   |                            |     SIM_READ_RECORD_REQ     |
      |                            *===========================> *
(7)   |                            |     SIM_READ_RECORD_CNF     |
      |                            *<=========================== *
(8)   |                            |     SIM_READ_RECORD_REQ     |
      |                            *===========================> *
(9)   |                            |     SIM_READ_RECORD_CNF     |
      |                            *<=========================== *
(10)  |                            |     SIM_READ_RECORD_REQ     |
      |                            *===========================> *
(11)  |                            |     SIM_READ_RECORD_CNF     |
      |                            *<=========================== *
(12)  |                            |     SIM_READ_RECORD_REQ     |
      |                            *===========================> *
(13)  |                            |     SIM_READ_RECORD_CNF     |
      |                            *<=========================== *
(14)  |                            |     SIM_READ_RECORD_REQ     |
      |                            *===========================> *
(15)  |                            |     SIM_READ_RECORD_CNF     |
      |                            *<=========================== *
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_BDN_ENABLED

	sim_serv	SIM_SERV_ABSDN_NOSTK
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(4) SIM_READ_CNF		
	datafield	SIM_ECC
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	NOT_USED
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(6) SIM_READ_CNF		
	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_4
<A>	trans_data	A_AD_FIELD_CI_DISABLED
<B>	trans_data	A_AD_FIELD_CI_ENABLED
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(8) MNSMS_REPORT_IND		
	state	SMS_STATE_READY
(9) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_ADN
	record	NUM_1
	length	MAX_DATAS
(10) SIM_READ_RECORD_CNF		
	datafield	SIM_ADN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_1
	length	LDATA_SDN
	linear_data	DATA_SDN000
(11) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_BDN

		record	NUM_1
		length	MAX_DATAS
(12)	SIM_READ_RECORD_CNF		
		datafield	SIM_BDN
		cause	SIM_NO_ERROR
		record	NUM_1
		max_record	NUM_1
		length	LDATA_SDN
		linear_data	DATA_SDN000
(13)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_SDN
		record	NUM_1
		length	MAX_DATAS
(14)	SIM_READ_RECORD_CNF		
		datafield	SIM_SDN
		cause	SIM_NO_ERROR
		record	NUM_1
		max_record	NUM_3
		length	LDATA_SDN
		linear_data	DATA_SDN000
(15)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_SDN
		record	NUM_2
		length	LDATA_SDN
(16)	SIM_READ_RECORD_CNF		
		datafield	SIM_SDN
		cause	SIM_NO_ERROR
		record	NUM_2
		max_record	NUM_3
		length	LDATA_SDN
		linear_data	DATA_SDN119
(17)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_SDN
		record	NUM_3
		length	LDATA_SDN
(18)	SIM_READ_RECORD_CNF		
		datafield	SIM_SDN
		cause	SIM_NO_ERROR
		record	NUM_3
		max_record	NUM_3
		length	LDATA_SDN
		linear_data	DATA_SDN911

History:	13.012.01	KGT	Initial
	19.09.02	CLB	SIM service table changed: NO CC control for ACI207.

4.3.10 ACI030: correct PIN entry (no ECC read from SIM)

Description:

after that a PIN is required, a correct PIN is entered

Preamble:

ACI023

```
    APL                          ACI                           PS
     |                            |                            |
(1)  |                            |    SIM_VERIFY_PIN_CNF      |
     |                            *<===========================*
(2)  |                            |    SIM_MMI_INSERT_IND      |
     |                            *<===========================*
(3)  |                            |       SIM_READ_REQ         |
     |                            *===========================>*
(4)  |                            |       SIM_READ_CNF         |
     |                            *<===========================*
(5)  |                            |       SIM_READ_REQ         |
     |                            *===========================>*
(6)  |                            |       SIM_READ_CNF         |
     |                            *<===========================*
(7)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_VERIFY_PIN_CNF		
	cause	SIM_NO_ERROR
	pin_id	PHASE_2_PIN_1
	pin_cnt	NUM_3
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_ENABLED
	sim_serv	NOT_USED
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(4) SIM_READ_CNF		
	datafield	SIM_ECC

cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_ECC_FIELD_EMPTY

(5) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_AD
length	NOT_PRESENT_8BIT
max_length	NUM_0

(6) SIM_READ_CNF

datafield	SIM_AD
cause	SIM_NO_ERROR
length	NUM_4
trans_data	A_AD_FIELD_CI_DISABLED

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 08.03.02 kgt Initial

4.4 Network Registration (ACI031 - ACI040)

4.4.1 ACI031: service available

Description:

registration to network ends up with full service available

Preamble:

ACI024A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: +COPS=0,0)       |                             |
     *===========================> *                             |
(2)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(3)  |                             |         MMR_REG_REQ         |
     |                             *===========================> *
(4)  |                             |         MMR_REG_CNF         |
     |                             * <===========================*
(5)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(6)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
(7)  |         ACI_CMD_REQ         |                             |
     |        (cmd: +COPS?)        |                             |
     *===========================> *                             |
(8)  |         ACI_CMD_IND         |                             |
     |   (msg: +COPS:0,0,"...")    |                             |
     * <===========================*                             |
(9)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COPS_REG)
		cmd_seq	C_PLUS_COPS_REG
(2)	MMR_PLMN_MODE_REQ		
		mode	MODE_AUTO
(3)	MMR_REG_REQ		
		service_mode	SERVICE_MODE_FULL
(4)	MMR_REG_CNF		
		plmn	S_PLMN_262_01
		lac	NUM_4800
		cid	NUM_1000
(5)	MMR_PLMN_MODE_REQ		
		mode	MODE_AUTO
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(7)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	

Primitive	Parameter	Value
		NUM_ELEMENTS(C_PLUS_COPS_QUE)
	cmd_seq	C_PLUS_COPS_QUE
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_COPS_AUT_LNG_26201)
	cmd_seq	M_PLUS_COPS_AUT_LNG_26201
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 10.08.98 ACI Initial

4.4.2 ACI032: limited service available

Description:

registration to network ends up with limited service available

Preamble:

ACI024A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: +COPS=0,0)      |                            |
     *==========================> *                            |
(2)  |                            |     MMR_PLMN_MODE_REQ      |
     |                            *==========================> *
(3)  |                            |        MMR_REG_REQ         |
     |                            *==========================> *
(4)  |                            |        MMR_NREG_IND        |
     |                            *<========================== *
(5)  |                            |     MMR_PLMN_MODE_REQ      |
     |                            *==========================> *
(6)  |        ACI_CMD_IND         |                            |
     |        (msg: err)          |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COPS_REG)
	cmd_seq	C_PLUS_COPS_REG
(2) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(3) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL
(4) MMR_NREG_IND		
	service	NREG_LIMITED_SERVICE
	search_running	SEARCH_NOT_RUNNING

	new_forb_plmn	S_PLMN_262_01
	cause	NOT_USED
(5) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_LIMITED_SRV)
	cmd_seq	M_ERR_LIMITED_SRV

History: 10.08.98 ACI Initial

4.4.3 ACI033: no service available

Description:

registration to network ends up with no service available

Preamble:

ACI024A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |       (cmd: +CREG=1)       |                            |
     *==========================>*                             |
(2)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<==========================*                             |
(3)  |                            |        MMR_NREG_IND        |
     |                            *<===========================*
(4)  |        ACI_CMD_IND         |                            |
     |      (msg: +CREG: 2)       |                            |
     *<==========================*                             |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(M_PLUS_CREG_SET)
	cmd_seq	M_PLUS_CREG_SET
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) MMR_NREG_IND		
	service	NREG_NO_SERVICE
	search_running	NOT_USED
	new_forb_plmn	NOT_USED
	cause	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	

		NUM_ELEMENTS(M_PLUS_CREG_SEARCH)	
		cmd_seq	M_PLUS_CREG_SEARCH
History:	10.08.98	ACI	Initial

4.5 Voice Call Management (ACI050-ACI069)

4.5.1 ACI050: Single Voice Call variant G fails: needs CPHS

Description:

Mobile originated voice call establishment

Variants: <A>....<G>

Preamble:

<A>ACI001
<B>ACI001
<C>ACI001
<D>ACI001
<E>ACI001
<F>ACI001
<G>ACI501A

```
    APL                         ACI                         PS
       |                           |                           |
(1)    |        ACI_CMD_REQ        |                           |
       |      (cmd: AT%ALS=)       |                           |
       *==========================>*                           |
(2)    |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
(3)    |        ACI_CMD_REQ        |                           |
       |     (cmd: AT+CLIR=2)      |                           |
       *==========================>*                           |
(4)    |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
(5)    |        ACI_CMD_REQ        |                           |
       |     (cmd: AT+COLP=1)      |                           |
       *==========================>*                           |
(6)    |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
(7)    |        ACI_CMD_REQ        |                           |
       |     (cmd: ATD123456;)     |                           |
       *==========================>*                           |
(8)    |                           |       MNCC_SETUP_REQ      |
       |                           *==========================>*
(9)    |                           |        SIM_SYNC_REQ       |
       |                           *==========================>*
(10)   |                           |   MNCC_CALL_PROCEED_IND   |
       |                           *<==========================*
(11)   |                           |     MNCC_PROGRESS_IND     |
       |                           *<==========================*
(12)   |                           |       MNCC_ALERT_IND      |
       |                           *<==========================*
(13)   |                           |     MNCC_FACILITY_IND     |
       |                           *<==========================*
(14)   |                           |       MNCC_SYNC_IND       |
       |                           *<==========================*
(15)   |                           |       MNCC_SETUP_CNF      |
       |                           *<==========================*
(16)   |        ACI_CMD_IND        |                           |
       |     (msg: +COLP:...)      |                           |
       *<==========================*                           |
(17)   |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
       |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_ALS_OFF)	

<A>	cmd_seq	C_PERCENT_ALS_OFF
<B>	cmd_seq	C_PERCENT_ALS_OFF
<C>	cmd_seq	C_PERCENT_ALS_OFF
<D>	cmd_seq	C_PERCENT_ALS_OFF
<E>	cmd_seq	C_PERCENT_ALS_OFF
<F>	cmd_seq	C_PERCENT_ALS_ON
<G>	cmd_seq	C_PERCENT_ALS_OFF
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(8) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
<A>	bcpara	S_BS_VOICE
<B>	bcpara	S_BS_VOICE
<C>	bcpara	S_BS_VOICE
<D>	bcpara	S_BS_VOICE
<E>	bcpara	S_BS_VOICE
<F>	bcpara	S_BS_AUX_VOICE
<G>	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(9) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(10) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES

	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(11) MNCC_PROGRESS_IND		
	ti	NUM_0
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_INBAND_AVAIL
<C>	progress_desc	PROG_NO_END_TO_END_PLMN
<D>	progress_desc	PROG_DEST_NON_PLMN
<E>	progress_desc	PROG_ORIGIN_NON_PLMN
<F>	progress_desc	PROG_ORIGIN_NON_PLMN
<G>	progress_desc	PROG_ORIGIN_NON_PLMN
(12) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(13) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(14) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(15) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
	cmd_seq	M_PLUS_COLP_NUM
(17) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	22.12.98	AK	Initial

4.5.2 ACI051: Second Single Voice Call variant E fails: needs CPHS

Description:

Second mobile originated voice call establishment during an active MOC.

Variants: <A>....<E>

Preamble:

<A>ACI050A
<B>ACI050F
<C>ACI050A
<D>ACI050F
<E>ACI050G

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT%ALS=)       |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(3)   |        ACI_CMD_REQ        |                           |
      |     (cmd: ATD123456;)     |                           |
      *==========================>*                           |
(4)   |                           |       MNCC_HOLD_REQ       |
      |                           *==========================>*
(5)   |                           |       MNCC_HOLD_CNF       |
      |                           *<==========================*
(6)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(7)   |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(8)   |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(9)   |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(10)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(11)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(12)  |        ACI_CMD_IND        |                           |
      |      (msg: +COLP:...)     |                           |
      *<==========================*                           |
(13)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value	
(1)	ACI_CMD_REQ			
			cmd_src	CMD_SRC_EXT
			cmd_len	
		NUM_ELEMENTS(C_PERCENT_ALS_OFF)		
	<A>	cmd_seq	C_PERCENT_ALS_OFF	
	<B>	cmd_seq	C_PERCENT_ALS_ON	
	<C>	cmd_seq	C_PERCENT_ALS_ON	
	<D>	cmd_seq	C_PERCENT_ALS_OFF	
	<E>	cmd_seq	C_PERCENT_ALS_ON	
(2)	ACI_CMD_IND			
			cmd_len	NUM_ELEMENTS(M_OK)
			cmd_seq	M_OK
(3)	ACI_CMD_REQ			
			cmd_src	CMD_SRC_EXT
			cmd_len	

NUM_ELEMENTS(C_D_VOICE)
cmd_seq C_D_VOICE

(4) MNCC_HOLD_REQ
ti NUM_0

(5) MNCC_HOLD_CNF
ti NUM_0
cause
MNCC_CAUSE_HOLD_SUCCESS

(6) MNCC_SETUP_REQ
ti NUM_1
prio PRIO_NORM_CALL
ri RI_NOT_PRES
<A> bcpara S_BS_VOICE
<B> bcpara S_BS_AUX_VOICE
<C> bcpara S_BS_AUX_VOICE
<D> bcpara S_BS_VOICE
<E> bcpara S_BS_AUX_VOICE
bcpara2 S_BS_NOT_PRESENT
called_party S_CLD_PARTY
called_party_sub
S_CLD_PARTY_SUB
clir_sup CLR_SUP
fac_inf NOT_USED

(7) MNCC_CALL_PROCEED_IND
ti NUM_1
progress_desc
PROG_NOT_PRES
ri RI_NOT_PRES
<A> bcpara S_BS_VOICE
<B> bcpara S_BS_AUX_VOICE
<C> bcpara S_BS_AUX_VOICE
<D> bcpara S_BS_VOICE
<E> bcpara S_BS_AUX_VOICE
bcpara2 S_BS_NOT_PRESENT

(8) MNCC_PROGRESS_IND
ti NUM_1
progress_desc
PROG_NOT_PRES

(9) MNCC_ALERT_IND
ti NUM_1
progress_desc
PROG_NOT_PRES

(10) MNCC_SYNC_IND
ti NOT_PRESENT_8BIT
cause
MNCC_CAUSE_CHANNEL_SYNC
chm S_CHN_SPEECH

(11) MNCC_SETUP_CNF
ti NUM_1
cause
MNCC_CAUSE_SUCCESS
progress_desc

		PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
	cmd_seq	M_PLUS_COLP_NUM
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.5.3 ACI052: Third Single Voice Call

Description:

Third mobile originated voice call establishment during an active MOC and a held call.

Variants: <A>....<B>

Preamble:

<A>ACI051A
<B>ACI051B

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |      (cmd: AT%ALS=)      |                          |
     *=========================>*                          |
(2)  |        ACI_CMD_IND       |                          |
     |         (msg: OK)        |                          |
     *<=========================*                          |
(2)  |        ACI_CMD_REQ       |                          |
     |    (cmd: ATD123456;)     |                          |
     *=========================>*                          |
(3)  |        ACI_CMD_IND       |                          |
     |         (msg: OK)        |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_ALS_OFF)
<A>	cmd_seq	C_PERCENT_ALS_OFF
<B>	cmd_seq	C_PERCENT_ALS_ON
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History:	22.12.98	AK	Initial

4.5.4 ACI054: Voice Call with no answer by Subscriber, no in-band tones

Description:

Mobile originated voice call establishment

Preamble:

ACI001

```
     APL                         ACI                          PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+CLIR=2)      |                           |
      *==========================>*                           |
(2)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(3)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+COLP=1)      |                           |
      *==========================>*                           |
(4)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(5)   |       ACI_CMD_REQ         |                           |
      |     (cmd: ATD123456;)     |                           |
      *==========================>*                           |
(6)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(7)   |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(8)   |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(9)   |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(10)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(11)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(12)  |                           |    MNCC_DISCONNECT_IND    |
      |                           *<==========================*
(13)  |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(14)  |       ACI_CMD_IND         |                           |
      |     (msg: NO ANSWER)      |                           |
      *<==========================*                           |
(15)  |                           |     MNCC_RELEASE_CNF      |
      |                           *<==========================*
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_D_VOICE)
cmd_seq	C_D_VOICE

(6) MNCC_SETUP_REQ

ti	NUM_0
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(7) SIM_SYNC_REQ

synccs	SYNC_START_CALL

(8) MNCC_CALL_PROCEED_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT

(9) MNCC_PROGRESS_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(10) MNCC_ALERT_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(12) MNCC_DISCONNECT_IND

ti	NUM_0
cause	MNCC_CAUSE_ALERT_NO_ANSWER
diagnostic	NOT_PRESENT_8BIT
progress_desc	PROG_NOT_PRES

(13) SIM_SYNC_REQ

synccs	SYNC_STOP_CALL

(14) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_NO_ANSWER)
cmd_seq	M_NO_ANSWER

(15) MNCC_RELEASE_CNF

ti	NUM_0
cause	MNCC_CAUSE_ALERT_NO_ANSWER

4.5.5 ACI055: Voice Call with no answer by Subscriber, with in-band tones no reaction by user

Description:

Mobile originated voice call establishment

Preamble:

ACI001

Variants:

<A>....<E>

```
    APL                          ACI                         PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+CLIR=2)      |                           |
     *===========================>*                           |
(2)  |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
(3)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+COLP=1)      |                           |
     *===========================>*                           |
(4)  |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
(5)  |        ACI_CMD_REQ         |                           |
     |     (cmd: ATD123456;)      |                           |
     *===========================>*                           |
(6)  |                            |      MNCC_SETUP_REQ       |
     |                            *==========================>*
(7)  |                            |       SIM_SYNC_REQ        |
     |                            *==========================>*
(8)  |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<==========================*
(9)  |                            |     MNCC_PROGRESS_IND     |
     |                            *<==========================*
(10) |                            |      MNCC_ALERT_IND       |
     |                            *<==========================*
(11) |                            |       MNCC_SYNC_IND       |
     |                            *<==========================*
(12) |                            |    MNCC_DISCONNECT_IND    |
     |                            *<==========================*
(13) |                            |     MNCC_RELEASE_CNF      |
     |                            *<==========================*
(14) |                            |       SIM_SYNC_REQ        |
     |                            *==========================>*
(15) |        ACI_CMD_IND         |                           |
     |      (msg: NO ANSWER)      |                           |
     *<===========================*                           |
     |                            |                           |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
cmd_seq	C_PLUS_CLIR_SUP

(2) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(3) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_D_VOICE)
cmd_seq	C_D_VOICE

(6) MNCC_SETUP_REQ

ti	NUM_0
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(7) SIM_SYNC_REQ

synccs	SYNC_START_CALL

(8) MNCC_CALL_PROCEED_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT

(9) MNCC_PROGRESS_IND

	ti	NUM_0
<A>	progress_desc	PROG_INBAND_AVAIL
<B>	progress_desc	PROG_NO_END_TO_END_PLMN
<C>	progress_desc	PROG_DEST_NON_PLMN
<D>	progress_desc	PROG_ORIGIN_NON_PLMN
<E>	progress_desc	PROG_NOT_PRES

(10) MNCC_ALERT_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(12) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_ALERT_NO_ANSWER
	diagnostic	NOT_PRESENT_8BIT
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_NOT_PRES
<C>	progress_desc	PROG_NOT_PRES
<D>	progress_desc	PROG_NOT_PRES
<E>	progress_desc	PROG_INBAND_AVAIL
(13) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_ALERT_NO_ANSWER
(14) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_NO_ANSWER)
	cmd_seq	M_NO_ANSWER

History:	21.09.99	AK	Initial

4.5.6 ACI056: Voice Call with no answer by Subscriber, with in-band tones release by user

Description: Mobile originated voice call establishment

Preamble:

ACI024A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CLIR=2)      |                            |
     *===========================>*                            |
(2)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+COLP=1)      |                            |
     *===========================>*                            |
(4)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_REQ         |                            |
     |      (cmd: ATD123456;)     |                            |
     *===========================>*                            |
(6)  |                            |      MNCC_SETUP_REQ        |
     |                            *===========================>*
(7)  |                            |       SIM_SYNC_REQ         |
     |                            *===========================>*
(8)  |                            |   MNCC_CALL_PROCEED_IND    |
     |                            *<===========================*
(9)  |                            |     MNCC_PROGRESS_IND      |
     |                            *<===========================*
(10) |                            |      MNCC_ALERT_IND        |
     |                            *<===========================*
(11) |                            |       MNCC_SYNC_IND        |
     |                            *<===========================*
(12) |                            |    MNCC_DISCONNECT_IND     |
     |                            *<===========================*
(13) |       ACI_ABORT_REQ        |                            |
     *===========================>*                            |
(14) |                            |       SIM_SYNC_REQ         |
     |                            *===========================>*
(15) |                            |     MNCC_RELEASE_REQ       |
     |                            *===========================>*
(16) |                            |     MNCC_RELEASE_CNF       |
     |                            *<===========================*
(17) |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(6) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_NO_RESPONSE
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_INBAND_AVAIL
(13) ACI_ABORT_REQ		
	cmd_src	CMD_SRC_EXT
	cause	ABT_ABORT_CMD
(14) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL

(15) MNCC_RELEASE_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	A_FAC_EMPTY
	ss_version	NOT_USED
(16) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_NO_RESPONSE
(17) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.09.99 AK Initial

4.5.7 ACI057: Call Termination without in-band tones

Description:

call termination procedure without in-band tones active.

Preamble:

ACI050A

Variants:

<A>....<D>

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |                             |     MNCC_DISCONNECT_IND     |
      |                             *<=========================== *
(2)   |                             |         SIM_SYNC_REQ        |
      |                             *===========================> *
(3)   |         ACI_CMD_IND         |                             |
      |      (msg: NO CARRIER)      |                             |
      *<=========================== *                             |
(4)   |                             |      MNCC_RELEASE_CNF       |
      |                             *<=========================== *
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_NO_END_TO_END_PLMN
<C>	progress_desc	PROG_DEST_NON_PLMN
<D>	progress_desc	PROG_ORIGIN_NON_PLMN
(2) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_NO_CARRIER)
	cmd_seq	M_NO_CARRIER

(4) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR

History: 29.04.99 AK Initial

4.5.8 ACI058: Call Termination with in-band tones

Description: call termination procedure with in-band tones active.

Preamble:

ACI050A

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |                              |     MNCC_DISCONNECT_IND      |
      |                              *<============================*
(2)   |         ACI_CMD_REQ          |                              |
      |          (cmd: ATH)          |                              |
      *============================>*                              |
(3)   |                              |         SIM_SYNC_REQ         |
      |                              *============================>*
(4)   |                              |       MNCC_RELEASE_REQ       |
      |                              *============================>*
(5)   |                              |       MNCC_RELEASE_CNF       |
      |                              *<============================*
(6)   |         ACI_CMD_IND          |                              |
      |          (msg: OK)           |                              |
      *<============================*                              |
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_INBAND_AVAIL
(2) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_H)
	cmd_seq	C_H
(3) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(4) MNCC_RELEASE_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	A_FAC_EMPTY
	ss_version	NOT_USED
(5) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR

Primitive	Parameter	Value
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.09.99 AK Initial

4.5.9 ACI059: Call Termination with in-band tones, no reaction by user

Description:

call termination procedure with in-band tones active. User does not respond to disconnect.

Variants:

<A>....<B>

Preamble:

<A>ACI050B
<B>ACI050A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |    MNCC_DISCONNECT_IND     |
     |                            *<===========================*
(2)  |                            |      MNCC_RELEASE_IND      |
     |                            *<===========================*
(3)  |                            |        SIM_SYNC_REQ        |
     |                            *===========================>*
(4)  |        ACI_CMD_IND         |                            |
     |     (msg: NO CARRIER)      |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_INBAND_AVAIL
(2) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(3) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_NO_CARRIER)
	cmd_seq	M_NO_CARRIER

History: 21.09.99 AK Initial

4.5.10 ACI060: Voice Call with no answer by Subscriber, release by user prior to TCH assignment

Description:

Mobile originated voice call establishment

Preamble:

ACI001

Variants:

<A>....<E>

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CLIR=2)      |                            |
     *===========================>*                            |
(2)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+COLP=1)      |                            |
     *===========================>*                            |
(4)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_REQ         |                            |
     |     (cmd: ATD123456;)      |                            |
     *===========================>*                            |
(6)  |                            |       MNCC_SETUP_REQ       |
     |                            *===========================>*
(7)  |                            |        SIM_SYNC_REQ        |
     |                            *===========================>*
(8)  |                            |    MNCC_CALL_PROCEED_IND   |
     |                            *<===========================*
(9)  |                            |     MNCC_PROGRESS_IND      |
     |                            *<===========================*
(10) |                            |       MNCC_ALERT_IND       |
     |                            *<===========================*
(11) |                            |    MNCC_DISCONNECT_IND     |
     |                            *<===========================*
(12) |                            |        SIM_SYNC_REQ        |
     |                            *===========================>*
(13) |        ACI_CMD_IND         |                            |
     |      (msg: NO ANSWER)      |                            |
     *<===========================*                            |
(14) |                            |      MNCC_RELEASE_CNF      |
     |                            *<===========================*
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(6) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
<A>	progress_desc	PROG_INBAND_AVAIL
<B>	progress_desc	PROG_NO_END_TO_END_PLMN
<C>	progress_desc	PROG_DEST_NON_PLMN
<D>	progress_desc	PROG_ORIGIN_NON_PLMN
<E>	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_ALERT_NO_ANSWER
	diagnostic	NOT_PRESENT_8BIT
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_NOT_PRES

<C>	progress_desc	PROG_NOT_PRES
<D>	progress_desc	PROG_NOT_PRES
<E>	progress_desc	PROG_INBAND_AVAIL
(12) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_NO_ANSWER)
	cmd_seq	M_NO_ANSWER
(14) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_ALERT_NO_ANSWER

History: 21.09.99 AK Initial

4.5.11 ACI061: Second Single Voice Call, Hold of First Calls Fails

Description:

Second mobile originated voice call establishment during an active MOC. Putting first call on hold fails, second attempt succeeds.

Preamble:

ACI050A

```
    APL                          ACI                          PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |     (cmd: ATD123456;)      |                           |
     *===========================>*                           |
(2)  |                            |       MNCC_HOLD_REQ       |
     |                            *==========================>*
(3)  |                            |       MNCC_HOLD_CNF       |
     |                            *<==========================*
(4)  |        ACI_CMD_IND         |                           |
     |        (msg: ERROR)        |                           |
     *<===========================*                           |
(5)  |        ACI_CMD_REQ         |                           |
     |     (cmd: ATD123456;)      |                           |
     *===========================>*                           |
(6)  |                            |       MNCC_HOLD_REQ       |
     |                            *==========================>*
(7)  |                            |       MNCC_HOLD_CNF       |
     |                            *<==========================*
(8)  |                            |      MNCC_SETUP_REQ       |
     |                            *==========================>*
(9)  |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<==========================*
(10) |                            |     MNCC_PROGRESS_IND     |
     |                            *<==========================*
(11) |                            |      MNCC_ALERT_IND       |
     |                            *<==========================*
(12) |                            |       MNCC_SYNC_IND       |
     |                            *<==========================*
(13) |                            |      MNCC_SETUP_CNF       |
     |                            *<==========================*
(14) |        ACI_CMD_IND         |                           |
     |      (msg: +COLP:...)      |                           |
     *<===========================*                           |
(15) |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
     |                            |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(2) MNCC_HOLD_REQ		
	ti	NUM_0
(3) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_TEMP_FAIL
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(6) MNCC_HOLD_REQ		
	ti	NUM_0
(7) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_HOLD_SUCCESS
(8) MNCC_SETUP_REQ		
	ti	NUM_1
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(9) MNCC_CALL_PROCEED_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(10) MNCC_PROGRESS_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(11) MNCC_ALERT_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(12) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(13) MNCC_SETUP_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES

		connected_number	S_CLG_PARTY
		connected_number_sub	S_CLG_PARTY_SUB
(14) ACI_CMD_IND			
		cmd_len	
		NUM_ELEMENTS(M_PLUS_COLP_NUM)	
		cmd_seq	M_PLUS_COLP_NUM
(15) ACI_CMD_IND			
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History:	22.12.98	AK	Initial

4.5.12 ACI062: Single Voice Call, %CPI activated

Description:

Mobile originated voice call establishment with % CPI activated and In Band Ton set with alert indication

Preamble:

ACI001

```
    APL                         ACI                          PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT%CPI=1)       |                           |
      *==========================>*                           |
(2)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(1)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT%CUNS=1)      |                           |
      *==========================>*                           |
(2)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(3)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+CLIR=2)      |                           |
      *==========================>*                           |
(4)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(5)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+COLP=1)      |                           |
      *==========================>*                           |
(6)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(7)   |       ACI_CMD_REQ         |                           |
      |    (cmd: ATD123456;)      |                           |
      *==========================>*                           |
(8)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(9)   |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(10)  |                           |  MNCC_CALL_PROCEED_IND    |
      |                           *<==========================*
(11)  |                           |    MNCC_PROGRESS_IND      |
      |                           *<==========================*
(12)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(18)  |       ACI_CMD_IND         |                           |
      |       (msg: %CPI)         |                           |
      *<==========================*                           |
(13)  |                           |    MNCC_FACILITY_IND      |
      |                           *<==========================*
(14)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(19)  |       ACI_CMD_IND         |                           |
      |       (msg: %CPI)         |                           |
      *<==========================*                           |
(15)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(20)  |       ACI_CMD_IND         |                           |
      |       (msg: %CPI)         |                           |
      *<==========================*                           |
(16)  |       ACI_CMD_IND         |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                          |
(17)  |         ACI_CMD_IND         |                          |
      |          (msg: OK)          |                          |
      *<==========================*                          |
      |                             |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPI_ON)
	cmd_seq	C_PERCENT_CPI_ON
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CUNS_ON)
	cmd_seq	C_PERCENT_CUNS_ON
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(10) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT

	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(11) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(12) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(13) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(14) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_INBAND_AVAIL
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_CPI_ALRT)
	cmd_seq	M_CPI_ALRT
(16) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(17) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(18) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_CPI_SYNC)
	cmd_seq	M_CPI_SYNC
(19) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_INBAND_AVAIL
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(20) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_CPI_CONN)
	cmd_seq	M_CPI_CONN
(21) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_COLP_NUM)	
	cmd_seq	M_PLUS_COLP_NUM
(22) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.6 Registration (ACI080-ACI089)

4.6.1 ACI080: Net Search

Description:

Scan for available PLMN's

Preamble:

ACI024A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |        ACI_CMD_REQ          |                             |
     |      (cmd: AT+COPS=?)       |                             |
     *===========================> *                             |
(2)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(3)  |                             |         MMR_REG_REQ         |
     |                             *===========================> *
(4)  |                             |        MMR_PLMN_IND         |
     |                             *<=========================== *
(5)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(6)  |        ACI_CMD_IND          |                             |
     |      (msg: +COPS: ...)      |                             |
     *<=========================== *                             |
(7)  |        ACI_CMD_IND          |                             |
     |         (msg: OK)           |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_COPS_TST)	
	cmd_seq	C_PLUS_COPS_TST
(2) MMR_PLMN_MODE_REQ		
	mode	MODE_MAN
(3) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL
(4) MMR_PLMN_IND		
	cause	MMCS_SUCCESS
	plmn	F_PLMN_LST
	lac_list	NOT_USED
	forb_ind	F_FRB_PLMN_LST
	rxlevel	F_RXL_PLMN_LST

(5) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(6) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_COPS_LST)	
	cmd_seq	M_PLUS_COPS_LST
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.6.2 ACI081: Full Service, Auto, PIN entered

Description:

Register to full service. PIN was already entered.

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CFUN=1)      |                            |
     *===========================>*                            |
(2)  |                            |      SIM_ACTIVATE_REQ      |
     |                            *===========================>*
(3)  |                            |      SIM_ACTIVATE_CNF      |
     |                            *<===========================*
(4)  |                            |     SIM_MMI_INSERT_IND     |
     |                            *<===========================*
(5)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(6)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(7)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(8)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(9)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(10) |        ACI_CMD_REQ         |                            |
     |     (cmd: AT%NRG=0,0)      |                            |
     *===========================>*                            |
(11) |                            |     MMR_PLMN_MODE_REQ      |
     |                            *===========================>*
(12) |                            |        MMR_REG_REQ         |
     |                            *===========================>*
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CFUN_FULL)
cmd_seq	C_PLUS_CFUN_FULL

(2) SIM_ACTIVATE_REQ

proc	SIM_INITIALISATION
mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(3) SIM_ACTIVATE_CNF

cause	SIM_NO_ERROR
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(4) SIM_MMI_INSERT_IND

func	NOT_USED
sim_serv	NOT_USED
imsi_field	NOT_USED
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(5) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_ECC
length	NOT_PRESENT_8BIT
max_length	NUM_0

(6) SIM_READ_CNF

datafield	SIM_ECC
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_ECC_FIELD

(7) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_AD
length	NOT_PRESENT_8BIT
max_length	NUM_0

(8) SIM_READ_CNF

datafield	SIM_AD
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_AD_FIELD_CI_DISABLED

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(10) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_NRG_FULL_AUTO)	
	cmd_seq	C_PLUS_NRG_FULL_AUTO
(11) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(12) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL

History:	21.04.99	AK	Initial

4.6.3 ACI082: Full Service, Auto, PIN entered, Registration Successful

Description:

Registration successful.

Preamble:

ACI081

```
    APL                          ACI                          PS
      |                           |                            |
(1)   |                           |        MMR_REG_CNF         |
      |                           *<===========================*
(2)   |                           |     MMR_PLMN_MODE_REQ      |
      |                           *===========================>*
(3)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(4)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT%NRG?)       |                            |
      *==========================>*                            |
(5)   |        ACI_CMD_IND        |                            |
      |     (msg: %NRG: ...)      |                            |
      *<==========================*                            |
(6)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) MMR_REG_CNF		
	plmn	S_PLMN_262_01
	lac	NUM_4800
	cid	NUM_1000
(2) MMR_PLMN_MODE_REQ	mode	MODE_AUTO
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_QUERY)
	cmd_seq	C_PLUS_NRG_QUERY
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_NRG_AUTO_FULL_LONG_D1)
	cmd_seq	M_PLUS_NRG_AUTO_FULL_LONG_D1
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.4 ACI085: Full Service, Auto, no PIN entered

Description:

Register to full service. no PIN was already entered.

Preamble:

ACI001

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |         ACI_CMD_REQ          |                              |
      |      (cmd: AT%NRG=0,0)       |                              |
      *============================> *                              |
(2)   |                              |       SIM_ACTIVATE_REQ       |
      |                              *============================> *
(3)   |                              |       SIM_ACTIVATE_CNF       |
      |                              *<============================ *
(4)   |                              |      SIM_MMI_INSERT_IND      |
      |                              *<============================ *
(5)   |                              |         SIM_READ_REQ         |
      |                              *============================> *
(6)   |                              |         SIM_READ_CNF         |
      |                              *<============================ *
(7)   |                              |         SIM_READ_REQ         |
      |                              *============================> *
(8)   |                              |         SIM_READ_CNF         |
      |                              *<============================ *
(9)   |                              |       MMR_PLMN_MODE_REQ      |
      |                              *============================> *
(10)  |                              |         MMR_REG_REQ          |
      |                              *============================> *
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

	NUM_ELEMENTS(C_PLUS_NRG_FULL_AUTO)	
	cmd_seq	C_PLUS_NRG_FULL_AUTO
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(4) SIM_MMI_INSERT_IND		
	func	NOT_USED
	sim_serv	NOT_USED
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(6) SIM_READ_CNF		
	datafield	SIM_ECC
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_ECC_FIELD
(7) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(8) SIM_READ_CNF		
	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_AD_FIELD_CI_DISABLED
(9) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(10) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL

History: 21.04.99 AK Initial

4.6.5 ACI086: Full Service, Auto, no PIN entered, Registration Successful

Description:

Registration successful.

Preamble:

ACI085

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |                             |         MMR_REG_CNF         |
     |                             *<=========================== *
(2)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(3)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
(4)  |         ACI_CMD_REQ         |                             |
     |       (cmd: AT%NRG?)        |                             |
     *===========================> *                             |
(5)  |         ACI_CMD_IND         |                             |
     |      (msg: %NRG: ...)       |                             |
     *<=========================== *                             |
(6)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) MMR_REG_CNF		
	plmn	S_PLMN_262_01
	lac	NUM_4800
	cid	NUM_1000
(2) MMR_PLMN_MODE_REQ	mode	MODE_AUTO
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_QUERY)
	cmd_seq	C_PLUS_NRG_QUERY
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_NRG_AUTO_FULL_LONG_D1)
	cmd_seq	M_PLUS_NRG_AUTO_FULL_LONG_D1

(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.6 ACI090: Full Service, Manual, PIN entered

Description:

Register to full service. PIN was already entered.

Preamble:

ACI001

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: AT+CFUN=1)     |                           |
     *==========================>*                           |
(2)  |                           |      SIM_ACTIVATE_REQ     |
     |                           *==========================>*
(3)  |                           |      SIM_ACTIVATE_CNF     |
     |                           *<==========================*
(4)  |                           |     SIM_MMI_INSERT_IND    |
     |                           *<==========================*
(5)  |                           |        SIM_READ_REQ       |
     |                           *==========================>*
(6)  |                           |        SIM_READ_CNF       |
     |                           *<==========================*
(7)  |                           |        SIM_READ_REQ       |
     |                           *==========================>*
(8)  |                           |        SIM_READ_CNF       |
     |                           *<==========================*
(9)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
(10) |        ACI_CMD_REQ        |                           |
     | (cmd: AT%NRG=1,0,1,”TMO") |                           |
     *==========================>*                           |
(11) |                           |     MMR_PLMN_MODE_REQ     |
     |                           *==========================>*
(12) |                           |        MMR_PLMN_RES       |
     |                           *==========================>*
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CFUN_FULL)	
	cmd_seq	C_PLUS_CFUN_FULL
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION

mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(3) SIM_ACTIVATE_CNF

cause	SIM_NO_ERROR
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(4) SIM_MMI_INSERT_IND

func	NOT_USED
sim_serv	NOT_USED
imsi_field	NOT_USED
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(5) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_ECC
length	NOT_PRESENT_8BIT
max_length	NUM_0

(6) SIM_READ_CNF

datafield	SIM_ECC
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_ECC_FIELD

(7) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_AD
length	NOT_PRESENT_8BIT
max_length	NUM_0

(8) SIM_READ_CNF

datafield	SIM_AD
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_AD_FIELD_CI_DISABLED

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(10) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_NRG_FULL_MAN)
cmd_seq	C_PLUS_NRG_FULL_MAN

(11) MMR_PLMN_MODE_REQ

mode	MODE_MAN

(12) MMR_PLMN_RES		
	plmn	S_PLMN_262_01

History:	21.04.99	AK	Initial

4.6.7 ACI091: Full Service, Manual, PIN entered, Registration Successful

Description:

Registration successful.

Preamble:

ACI090

```
    APL                          ACI                          PS
      |                           |                            |
(1)   |                           |        MMR_REG_CNF         |
      |                           *<===========================*
(2)   |                           |     MMR_PLMN_MODE_REQ      |
      |                           *===========================>*
(3)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(4)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT%NRG?)       |                            |
      *==========================>*                            |
(5)   |        ACI_CMD_IND        |                            |
      |     (msg: %NRG: ...)      |                            |
      *<==========================*                            |
(6)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) MMR_REG_CNF		
	plmn	S_PLMN_262_01
	lac	NUM_4800
	cid	NUM_1000
(2) MMR_PLMN_MODE_REQ		
	mode	MODE_MAN
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_QUERY)
	cmd_seq	C_PLUS_NRG_QUERY
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_NRG_MAN_FULL_SHORT_D1)

	cmd_seq M_PLUS_NRG_MAN_FULL_SHORT_D1	
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.8 ACI095: Full Service, Auto, no PIN entered

Description:

Register to full service. no PIN was already entered.

Preamble:

ACI001

```
    APL                           ACI                            PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |  (cmd: AT%NRG=0,1,1,"TMO")  |                             |
     *===========================> *                             |
(2)  |                             |      SIM_ACTIVATE_REQ       |
     |                             *===========================> *
(3)  |                             |      SIM_ACTIVATE_CNF       |
     |                             *<=========================== *
(4)  |                             |     SIM_MMI_INSERT_IND      |
     |                             *<=========================== *
(5)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(6)  |                             |        SIM_READ_CNF         |
     |                             *<=========================== *
(7)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(8)  |                             |        SIM_READ_CNF         |
     |                             *<=========================== *
(9)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(10) |                             |        MMR_PLMN_RES         |
     |                             *===========================> *
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_NRG_FULL_MAN)	
	cmd_seq	C_PLUS_NRG_FULL_MAN
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED

(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(4) SIM_MMI_INSERT_IND		
	func	NOT_USED
	sim_serv	NOT_USED
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(6) SIM_READ_CNF		
	datafield	SIM_ECC
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_ECC_FIELD
(7) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(8) SIM_READ_CNF		
	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_AD_FIELD_CI_DISABLED
(9) MMR_PLMN_MODE_REQ	mode	MODE_MAN
(10) MMR_PLMN_RES	plmn	S_PLMN_262_01

4.6.9 ACI096: Full Service, Auto, no PIN entered, Registration Successful

Description:

Registration successful.

Preamble:

ACI095

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |        MMR_REG_CNF         |
     |                            *<===========================*
(2)  |                            |     MMR_PLMN_MODE_REQ      |
     |                            *===========================>*
(3)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(4)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT%NRG?)        |                            |
     *===========================>*                            |
(5)  |        ACI_CMD_IND         |                            |
     |     (msg: %NRG: ...)       |                            |
     *<===========================*                            |
(6)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) MMR_REG_CNF		
	plmn	S_PLMN_262_01
	lac	NUM_4800
	cid	NUM_1000
(2) MMR_PLMN_MODE_REQ	mode	MODE_MAN
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_QUERY)
	cmd_seq	C_PLUS_NRG_QUERY
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_NRG_MAN_FULL_SHORT_D1)
	cmd_seq	M_PLUS_NRG_MAN_FULL_SHORT_D1

Primitive	Parameter	Value
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.10 ACI100: Full Service, Manual, PIN required

Description:

Register to full service. PIN is required.

Preamble:

ACI001

```
     APL                          ACI                          PS
       |                            |                            |
(1)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+CMEE=2)      |                            |
       *===========================>*                            |
(2)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
(3)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+CFUN=1)      |                            |
       *===========================>*                            |
(4)    |                            |       SIM_ACTIVATE_REQ     |
       |                            *===========================>*
(5)    |                            |       SIM_ACTIVATE_CNF     |
       |                            *<===========================*
(6)    |        ACI_CMD_IND         |                            |
       |  (msg: ERROR: SIM PIN..)   |                            |
       *<===========================*                            |
(7)    |        ACI_CMD_REQ         |                            |
       | (cmd: AT%NRG=1,0,1,"TMO")  |                            |
       *===========================>*                            |
(8)    |                            |       SIM_ACTIVATE_REQ     |
       |                            *===========================>*
(9)    |                            |       SIM_ACTIVATE_CNF     |
       |                            *<===========================*
(6)    |        ACI_CMD_IND         |                            |
       |  (msg: ERROR: SIM PIN..)   |                            |
       *<===========================*                            |
       |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CMEE_VERB)
	cmd_seq	C_PLUS_CMEE_VERB
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	
NUM_ELEMENTS(C_PLUS_CFUN_FULL)	
cmd_seq	C_PLUS_CFUN_FULL

(4) SIM_ACTIVATE_REQ

proc	SIM_INITIALISATION
mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(5) SIM_ACTIVATE_CNF

cause	SIM_CAUSE_PIN1_EXPECT
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_ERR_PIN_REQ)
cmd_seq	M_ERR_PIN_REQ

(7) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	
NUM_ELEMENTS(C_PLUS_NRG_FULL_MAN)	
cmd_seq	C_PLUS_NRG_FULL_MAN

(8) SIM_ACTIVATE_REQ

proc	SIM_INITIALISATION
mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(9) SIM_ACTIVATE_CNF

cause	SIM_CAUSE_PIN1_EXPECT
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_ERR_PIN_REQ)
cmd_seq	M_ERR_PIN_REQ

History: 22.04.99 AK Initial

4.6.11 ACI105: Limited Service out of Full Service, Successful

Description:

Change registration service from full to limited. Successful attempt.

Preamble:

ACI096

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |      (cmd: AT%NRG=,1)      |                            |
     *===========================>*                            |
(2)  |                            |        MMR_NREG_REQ        |
     |                            *===========================>*
(3)  |                            |        MMR_NREG_CNF        |
     |                            *<===========================*
(4)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(4)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT%NRG?)       |                            |
     *===========================>*                            |
(5)  |         ACI_CMD_IND        |                            |
     |      (msg: %NRG: ...)      |                            |
     *<===========================*                            |
(6)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_NRG_LIM)
		cmd_seq	C_PLUS_NRG_LIM
(2)	MMR_NREG_REQ		
		detach_cause	CS_SIM_REM
(3)	MMR_NREG_CNF		
		detach_cause	CS_SIM_REM
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_NRG_QUERY)
		cmd_seq	C_PLUS_NRG_QUERY

(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_NRG_MAN_LIM_SHORT_NONE)
	cmd_seq	M_PLUS_NRG_MAN_LIM_SHORT_NONE
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.12 ACI106: Limited Service out of Full Service, Unsuccessful

Description:

Change registration service from full to limited. Unsuccessful attempt.

Preamble:

ACI096

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT+CMEE=2)       |                              |
     *=============================>*                              |
(2)  |         ACI_CMD_IND          |                              |
     |           (msg: OK)          |                              |
     *<=============================*                              |
(3)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT%NRG=,1)       |                              |
     *=============================>*                              |
(4)  |                              |         MMR_NREG_REQ         |
     |                              *=============================>*
(5)  |                              |         MMR_NREG_IND         |
     |                              *<=============================*
(6)  |                              |      MMR_PLMN_MODE_REQ       |
     |                              *=============================>*
(7)  |         ACI_CMD_IND          |                              |
     |  (msg: ERROR: No Service)    |                              |
     *<=============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CMEE_VERB)
	cmd_seq	C_PLUS_CMEE_VERB
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_LIM)
	cmd_seq	C_PLUS_NRG_LIM
(4) MMR_NREG_REQ		
	detach_cause	CS_SIM_REM
(5) MMR_NREG_IND		
	service	NREG_NO_SERVICE
	search_running	SEARCH_NOT_RUNNING
	new_forb_plmn	S_PLMN_262_01
	cause	MMCS_PLMN_NOT_ALLOWED
(6) MMR_PLMN_MODE_REQ		
	mode	MODE_MAN
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_NO_NTW_SRV)
	cmd_seq	M_ERR_NO_NTW_SRV

History: 22.04.99 AK Initial

4.6.13 ACI107: Limited Service out of Limited Service, Successful

Description:

Change registration service from limited to limited. Successful attempt.

Preamble:

ACI105

```
   APL                        ACI                        PS
    |                          |                          |
(1) |       ACI_CMD_REQ        |                          |
    |     (cmd: AT%NRG=,1)     |                          |
    *=========================>*                          |
(2) |       ACI_CMD_IND        |                          |
    |        (msg: OK)         |                          |
    *<=========================*                          |
    |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_LIM)
	cmd_seq	C_PLUS_NRG_LIM
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.04.99 AK Initial

4.6.14 ACI108: No Service out of Limited Service, Successful

Description:

Change registration service from limited to no service. Successful attempt.

Preamble:

ACI105

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT%NRG=,2)       |                              |
     *============================> *                              |
(2)  |                              |         MMR_NREG_REQ         |
     |                              *============================> *
(3)  |                              |         MMR_NREG_CNF         |
     |                              *<============================ *
(4)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================ *                              |
     |                              |                              |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_NRG_NO)
		cmd_seq	C_PLUS_NRG_NO
(2)	MMR_NREG_REQ		
		detach_cause	CS_POW_OFF
(3)	MMR_NREG_CNF		
		detach_cause	CS_POW_OFF
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 22.04.99 AK Initial

4.6.15 ACI110: Limited Service, PIN entered

Description:

Register to limited service. PIN was already entered.

Preamble:

ACI001

```
    APL                           ACI                          PS
     |                             |                            |
(1)  |         ACI_CMD_REQ         |                            |
     |       (cmd: AT+CFUN=1)      |                            |
     *===========================> *                            |
(2)  |                             |      SIM_ACTIVATE_REQ      |
     |                             *===========================>*
(3)  |                             |      SIM_ACTIVATE_CNF      |
     |                             *<===========================*
(4)  |                             |     SIM_MMI_INSERT_IND     |
     |                             *<===========================*
(5)  |                             |        SIM_READ_REQ        |
     |                             *===========================>*
(6)  |                             |        SIM_READ_CNF        |
     |                             *<===========================*
(7)  |                             |        SIM_READ_REQ        |
     |                             *===========================>*
(8)  |                             |        SIM_READ_CNF        |
     |                             *<===========================*
(9)  |         ACI_CMD_IND         |                            |
     |          (msg: OK)          |                            |
     *<=========================== *                            |
(10) |         ACI_CMD_REQ         |                            |
     |       (cmd: AT%NRG=,1)      |                            |
     *===========================> *                            |
(11) |                             |        MMR_NREG_REQ        |
     |                             *===========================>*
(12) |                             |        MMR_NREG_CNF        |
     |                             *<===========================*
(13) |                             |     MMR_PLMN_MODE_REQ      |
     |                             *===========================>*
(14) |                             |        MMR_REG_REQ         |
     |                             *===========================>*
(15) |                             |        MMR_NREG_IND        |
     |                             *<===========================*
(16) |         ACI_CMD_IND         |                            |
     |          (msg: OK)          |                            |
     *<=========================== *                            |
     |                             |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

	NUM_ELEMENTS(C_PLUS_CFUN_FULL)	
	cmd_seq	C_PLUS_CFUN_FULL
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(4) SIM_MMI_INSERT_IND		
	func	NOT_USED
	sim_serv	NOT_USED
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(6) SIM_READ_CNF		
	datafield	SIM_ECC
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_ECC_FIELD
(7) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0
(8) SIM_READ_CNF		
	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_AD_FIELD_CI_DISABLED
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(10) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_LIM)
	cmd_seq	C_PLUS_NRG_LIM
(11) MMR_NREG_REQ		
	detach_cause	CS_SIM_REM
(12) MMR_NREG_CNF		
	detach_cause	CS_SIM_REM
(13) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO
(14) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL
(15) MMR_NREG_IND		
	service	NREG_LIMITED_SERVICE
	search_running	SEARCH_NOT_RUNNING
	new_forb_plmn	S_PLMN_262_01
	cause	NOT_USED
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.16 ACI111: Limited Service, No PIN entered

Description:

Register to limited service. No PIN was already entered.

Preamble:

ACI001

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |         ACI_CMD_REQ         |                             |
      |      (cmd: AT%NRG=,1)       |                             |
      *===========================> *                             |
(2)   |                             |      MMR_PLMN_MODE_REQ      |
      |                             *===========================> *
(3)   |                             |         MMR_REG_REQ         |
      |                             *===========================> *
(4)   |                             |        MMR_NREG_IND         |
      |                             *<=========================== *
(5)   |         ACI_CMD_IND         |                             |
      |         (msg: OK)           |                             |
      *<=========================== *                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_LIM)
	cmd_seq	C_PLUS_NRG_LIM

	Primitive	Parameter	Value
(2)	MMR_PLMN_MODE_REQ		
		mode	MODE_AUTO
(3)	MMR_REG_REQ		
		service_mode	SERVICE_MODE_FULL
(4)	MMR_NREG_IND		
		service	NREG_LIMITED_SERVICE
		search_running	SEARCH_NOT_RUNNING
		new_forb_plmn	S_PLMN_262_01
		cause	NOT_USED
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 21.04.99 AK Initial

4.6.17 ACI113: Change Registration Mode

Description:

Toggle Registration Mode.

Preamble:

ACI001

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT%NRG=0,3)      |                             |
     *===========================> *                             |
(2)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(5)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT%NRG=1,3)      |                             |
     *===========================> *                             |
(2)  |                             |      MMR_PLMN_MODE_REQ      |
     |                             *===========================> *
(5)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_NRG_SET_AUTO)
		cmd_seq	C_PLUS_NRG_SET_AUTO
(2)	MMR_PLMN_MODE_REQ	mode	MODE_AUTO

(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_NRG_SET_MAN)
	cmd_seq	C_PLUS_NRG_SET_MAN
(5) MMR_PLMN_MODE_REQ	mode	MODE_MAN
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 23.04.99 AK Initial

4.6.18 ACI114: Query PIN Status, no SIM information

Description:

Query for PIN status. SIM data currently not available.

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CPIN?)       |                            |
     *==========================> *                            |
(2)  |                            |      SIM_ACTIVATE_REQ      |
     |                            *==========================> *
(3)  |                            |      SIM_ACTIVATE_CNF      |
     |                            *<========================== *
(4)  |        ACI_CMD_IND         |                            |
     |  (msg: +CPIN: SIM PIN..)   |                            |
     *<========================== *                            |
(5)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_QUERY)
	cmd_seq	C_PLUS_CPIN_QUERY
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED

Primitive	Parameter	Value
(3) SIM_ACTIVATE_CNF		
	cause	SIM_CAUSE_PIN1_EXPECT
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(4) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_CPIN_PIN1)	
	cmd_seq	M_PLUS_CPIN_PIN1
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 23.04.99 AK Initial

4.7 Multiparty call management (ACI0120-ACI133)

4.7.1 ACI120: Build multiparty call

Description:

Build multiparty call out of an active and a held call.

Preamble:

ACI051A

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT+CHLD=3)       |                              |
     *============================> *                              |
(2)  |                              |      MNCC_FACILITY_REQ       |
     |                              *============================> *
(3)  |                              |      MNCC_FACILITY_IND       |
     |                              *<============================ *
(4)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================ *                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_3)
	cmd_seq	C_PLUS_CHLD_3
(2) MNCC_FACILITY_REQ		
	ti	NUM_1
	fac_inf	A_FAC_BUILD_MPTY
	ss_version	NUM_0

(3) MNCC_FACILITY_IND		
	ti	NUM_1
	fac_context	NOT_USED
	fac_inf	A_FAC_BUILD_MPTY_RES
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	20.05.99	AK	Initial

4.7.2 ACI121: Establish a new call while putting the multiparty on hold

Description:

New call setup. Multiparty call will be put on hold first.

Preamble:

ACI120

```
    APL                         ACI                        PS
     |                           |                          |
(1)  |        ACI_CMD_REQ        |                          |
     |     (cmd: ATD123456;)     |                          |
     *==========================>*                          |
(2)  |                           |     MNCC_FACILITY_REQ    |
     |                           *=========================>*
(3)  |                           |     MNCC_FACILITY_IND    |
     |                           *<=========================*
(4)  |                           |      MNCC_SETUP_REQ      |
     |                           *=========================>*
(5)  |                           |   MNCC_CALL_PROCEED_IND  |
     |                           *<=========================*
(6)  |                           |     MNCC_PROGRESS_IND    |
     |                           *<=========================*
(7)  |                           |      MNCC_ALERT_IND      |
     |                           *<=========================*
(8)  |                           |       MNCC_SYNC_IND      |
     |                           *<=========================*
(9)  |                           |      MNCC_SETUP_CNF      |
     |                           *<=========================*
(10) |        ACI_CMD_IND        |                          |
     |      (msg: +COLP:...)     |                          |
     *<==========================*                          |
(11) |        ACI_CMD_IND        |                          |
     |         (msg: OK)         |                          |
     *<==========================*                          |
     |                           |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE

(2) MNCC_FACILITY_REQ

ti	NUM_0
fac_inf	A_FAC_HOLD_MPTY
ss_version	NUM_0

(3) MNCC_FACILITY_IND

ti	NUM_0
fac_context	NOT_USED
fac_inf	A_FAC_HOLD_MPTY_RES

(4) MNCC_SETUP_REQ

ti	NUM_2
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(5) MNCC_CALL_PROCEED_IND

ti	NUM_2
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT

(6) MNCC_PROGRESS_IND

ti	NUM_2
progress_desc	PROG_NOT_PRES

(7) MNCC_ALERT_IND

ti	NUM_2
progress_desc	PROG_NOT_PRES

(8) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(9) MNCC_SETUP_CNF

ti	NUM_2
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_PARTY
connected_number_sub	S_CLG_PARTY_SUB

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
cmd_seq	M_PLUS_COLP_NUM

(11) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 20.05.99 AK Initial

4.7.3 ACI122: Place multiparty on hold

Description:

Place multiparty call on hold.

Preamble:

ACI120

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CHLD=2)     |                            |
     *==========================> *                            |
(2)  |                            |    MNCC_FACILITY_REQ       |
     |                            *==========================> *
(3)  |                            |    MNCC_FACILITY_IND       |
     |                            *<========================== *
(4)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
		cmd_seq	C_PLUS_CHLD_2
(2)	MNCC_FACILITY_REQ		
		ti	NUM_0
		fac_inf	A_FAC_HOLD_MPTY
		ss_version	NUM_0
(3)	MNCC_FACILITY_IND		
		ti	NUM_0
		fac_context	NOT_USED
		fac_inf	A_FAC_HOLD_MPTY_RES
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 20.05.99 AK Initial

4.7.4 ACI123: Retrieve held multiparty

Description:

Retrieve a held multiparty call.

Preamble:

ACI122

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |     (cmd: AT+CHLD=2)       |                            |
     *==========================>*                            |
(2)  |                            |     MNCC_FACILITY_REQ      |
     |                            *==========================>*
(3)  |                            |     MNCC_FACILITY_IND      |
     |                            *<==========================*
(4)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
	cmd_seq	C_PLUS_CHLD_2
(2) MNCC_FACILITY_REQ		
	ti	NUM_0
	fac_inf	A_FAC_RETRIEVE_MPTY
	ss_version	NUM_0
(3) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_RETRIEVE_MPTY_RES
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 20.05.99 AK Initial

4.7.5 ACI124: Split multiparty

Description:

Split multiparty call and continue communication with call 0.

Preamble:

ACI120

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |    (cmd: AT+CHLD=21)      |                           |
     *==========================>*                           |
(2)  |                           |     MNCC_FACILITY_REQ     |
     |                           *==========================>*
(3)  |                           |     MNCC_FACILITY_IND     |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_21)
	cmd_seq	C_PLUS_CHLD_21
(2) MNCC_FACILITY_REQ		
	ti	NUM_0
	fac_inf	A_FAC_SPLIT_MPTY
	ss_version	NUM_0
(3) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_SPLIT_MPTY_RES
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 20.05.99 AK Initial

4.7.6 ACI125: Build multiparty call with timeout

Description:

Build multiparty call out of an active and a two held calls. Network timed out.

Preamble:

ACI051A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT+CHLD=3)       |                             |
     *===========================> *                             |
(2)  |                             |     MNCC_FACILITY_REQ       |
     |                             *===========================> *
TIMEOUT (13000)
(3)  |         ACI_CMD_IND         |                             |
     |        (msg: ERROR)         |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_3)
	cmd_seq	C_PLUS_CHLD_3
(2) MNCC_FACILITY_REQ		
	ti	NUM_1
	fac_inf	A_FAC_BUILD_MPTY
	ss_version	NUM_0
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 28.06.99 AK Initial

4.7.7 ACI126: Toggle Held Multiparty and Active Call

Description:

The active call will put on hold and the held multiparty will be retrieved.

Preamble:

ACI121

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CHLD=2)      |                            |
     *===========================>*                            |
(2)  |                            |       MNCC_HOLD_REQ        |
     |                            *===========================>*
(4)  |                            |     MNCC_FACILITY_REQ      |
     |                            *===========================>*
(3)  |                            |       MNCC_HOLD_CNF        |
     |                            *<===========================*
(5)  |                            |     MNCC_FACILITY_IND      |
     |                            *<===========================*
(6)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
	cmd_seq	C_PLUS_CHLD_2
(2) MNCC_HOLD_REQ		
	ti	NUM_2
(3) MNCC_FACILITY_REQ		
	ti	NUM_0
	fac_inf	A_FAC_RETRIEVE_MPTY
	ss_version	NUM_0
(4) MNCC_HOLD_CNF		
	ti	NUM_2
	cause	MNCC_CAUSE_HOLD_SUCCESS
(5) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_RETRIEVE_MPTY_RES
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 20.05.99 AK Initial

4.7.8 ACI127: Toggle Active Multiparty and Held Call

Description:

The active multiparty will be put on hold and the held call will be retrieved.

Preamble:

ACI126

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT+CHLD=2)       |                              |
     *============================> *                              |
(2)  |                              |      MNCC_FACILITY_REQ       |
     |                              *============================> *
(3)  |                              |      MNCC_RETRIEVE_REQ       |
     |                              *============================> *
(4)  |                              |      MNCC_FACILITY_IND       |
     |                              *<============================ *
(5)  |                              |      MNCC_RETRIEVE_CNF       |
     |                              *<============================ *
(6)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================ *                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
	cmd_seq	C_PLUS_CHLD_2
(2) MNCC_FACILITY_REQ		
	ti	NUM_0
	fac_inf	A_FAC_HOLD_MPTY_2
	ss_version	NUM_0
(3) MNCC_RETRIEVE_REQ		
	ti	NUM_2
(4) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_HOLD_MPTY_RES
(5) MNCC_RETRIEVE_CNF		
	ti	NUM_2
	cause	MNCC_CAUSE_RETRIEVE_SUCCESS
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.7.9 ACI128: Place all active multiparty on hold and accept the waiting call

Description:

Place the current active multiparty call on hold. Accept the incoming call.

Preamble:

ACI120

```
    APL                          ACI                           PS
      |                           |                            |
(1)   |       ACI_CMD_REQ         |                            |
      |     (cmd: AT+CCWA=1)      |                            |
      *==========================>*                            |
(2)   |       ACI_CMD_IND         |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(3)   |                           |      MNCC_SETUP_IND        |
      |                           *<===========================*
(4)   |       ACI_CMD_IND         |                            |
      |     (msg: +CCWA: ...)     |                            |
      *<==========================*                            |
(5)   |                           |      MNCC_ALERT_REQ        |
      |                           *===========================>*
(6)   |       ACI_CMD_REQ         |                            |
      |     (cmd: AT+CHLD=2)      |                            |
      *==========================>*                            |
(2)   |                           |     MNCC_FACILITY_REQ      |
      |                           *===========================>*
(3)   |                           |     MNCC_FACILITY_IND      |
      |                           *<===========================*
(9)   |                           |      MNCC_SETUP_RES        |
      |                           *===========================>*
(10)  |                           |       MNCC_SYNC_IND        |
      |                           *<===========================*
(11)  |                           |   MNCC_SETUP_COMPL_IND     |
      |                           *<===========================*
(12)  |       ACI_CMD_IND         |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CCWA_ON)
	cmd_seq	C_PLUS_CCWA_ON
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) MNCC_SETUP_IND

ti	NUM_8
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
progress_desc	PROG_NOT_PRES
sig	SIG_RING_BACK_TONE_ON
calling_party	S_CLG_PARTY
calling_party_sub	S_CLG_PARTY_SUB
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
redirecting_party	NOT_USED
redirecting_party_sub	NOT_USED

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CCWA)
cmd_seq	M_PLUS_CCWA

(5) MNCC_ALERT_REQ

ti	NUM_8

(6) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
cmd_seq	C_PLUS_CHLD_2

(7) MNCC_FACILITY_REQ

ti	NUM_0
fac_inf	A_FAC_HOLD_MPTY
ss_version	NUM_0

(8) MNCC_FACILITY_IND

ti	NUM_0
fac_context	NOT_USED
fac_inf	A_FAC_HOLD_MPTY_RES

(9) MNCC_SETUP_RES

ti	NUM_8

(10) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(11) MNCC_SETUP_COMPL_IND

ti	NUM_8
cause	MNCC_CAUSE_SUCCESS

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 22.12.98 AK Initial

4.7.10 ACI129: Release active multiparty and accept the waiting call

Description:

Release all members of the active multiparty call. Accept the incoming call.

Preamble:

ACI120

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |      (cmd: AT+CCWA=1)        |                              |
     *============================>*                              |
(2)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================*                              |
(3)  |                              |        MNCC_SETUP_IND        |
     |                              *<============================*
(4)  |         ACI_CMD_IND          |                              |
     |      (msg: +CCWA: ...)       |                              |
     *<============================*                              |
(5)  |                              |        MNCC_ALERT_REQ        |
     |                              *============================>*
(6)  |         ACI_CMD_REQ          |                              |
     |      (cmd: AT+CHLD=1)        |                              |
     *============================>*                              |
(8)  |                              |     MNCC_DISCONNECT_REQ      |
     |                              *============================>*
(9)  |                              |         SIM_SYNC_REQ         |
     |                              *============================>*
(10) |                              |     MNCC_DISCONNECT_REQ      |
     |                              *============================>*
(11) |                              |       MNCC_RELEASE_IND       |
     |                              *<============================*
(12) |                              |       MNCC_RELEASE_IND       |
     |                              *<============================*
(14) |                              |        MNCC_SETUP_RES        |
     |                              *============================>*
(15) |                              |         SIM_SYNC_REQ         |
     |                              *============================>*
(16) |                              |        MNCC_SYNC_IND         |
     |                              *<============================*
(17) |                              |    MNCC_SETUP_COMPL_IND      |
     |                              *<============================*
(18) |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len NUM_ELEMENTS(C_PLUS_CCWA_ON)	
	cmd_seq	C_PLUS_CCWA_ON
(2) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED
(3) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CCWA)
	cmd_seq	M_PLUS_CCWA
(5) MNCC_ALERT_REQ		
	ti	NUM_8
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_1)
	cmd_seq	C_PLUS_CHLD_1
(7) MNCC_DISCONNECT_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(8) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(9) MNCC_DISCONNECT_REQ		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(10) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(11) MNCC_RELEASE_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
(12) MNCC_SETUP_RES		
	ti	NUM_8
(13) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL

	Parameter	Value
(14) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(15) MNCC_SETUP_COMPL_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_SUCCESS
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.7.11 ACI130: Release active multiparty and retrieve held call

Description:

The active multiparty will be released and the held call will be retrieved.

Preamble:

ACI126

```
    APL                         ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CHLD=1)      |                            |
     *===========================>*                            |
(2)  |                            |    MNCC_DISCONNECT_REQ     |
     |                            *==========================>*
(3)  |                            |    MNCC_DISCONNECT_REQ     |
     |                            *==========================>*
(4)  |                            |     MNCC_RELEASE_IND       |
     |                            *<==========================*
(5)  |                            |     MNCC_RELEASE_IND       |
     |                            *<==========================*
(6)  |                            |    MNCC_RETRIEVE_REQ       |
     |                            *==========================>*
(7)  |                            |    MNCC_RETRIEVE_CNF       |
     |                            *<==========================*
(8)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_1)
	cmd_seq	C_PLUS_CHLD_1
(2) MNCC_DISCONNECT_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR

	fac_inf	NOT_USED
	ss_version	NOT_USED
(3) MNCC_DISCONNECT_REQ		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(4) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(5) MNCC_RELEASE_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
(6) MNCC_RETRIEVE_REQ		
	ti	NUM_2
(7) MNCC_RETRIEVE_CNF		
	ti	NUM_2
	cause	MNCC_CAUSE_RETRIEVE_SUCCESS
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.8 Single Numbering Scheme (ACI0134-ACI134)

4.8.1 ACI134: Change Single Numbering Scheme

Description:

Change Single Numbering Scheme.

Preamble:

ACI001

```
    APL                         ACI                          PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CSNS?)      |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |      (msg: +CSNS: 0 )     |                           |
      *<==========================*                           |
(3)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(4)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CSNS=5)     |                           |
      *==========================>*                           |
(5)   |                           |     MNCC_CONFIGURE_REQ    |
      |                           *==========================>*
(6)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(7)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CSNS?)      |                           |
      *==========================>*                           |
(8)   |        ACI_CMD_IND        |                           |
      |      (msg: +CSNS: 7)      |                           |
      *<==========================*                           |
(9)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(10)  |        ACI_CMD_REQ        |                           |
      |   (cmd: AT+CBST=43,0,2)   |                           |
      *==========================>*                           |
(11)  |                           |     MNCC_CONFIGURE_REQ    |
      |                           *==========================>*
(12)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(13)  |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CSNS=7)     |                           |
      *==========================>*                           |
(14)  |                           |     MNCC_CONFIGURE_REQ    |
      |                           *==========================>*
(15)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
     *<==========================*                          |
     |                           |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSNS_QUERY)
	cmd_seq	C_PLUS_CSNS_QUERY
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSNS_0)
	cmd_seq	M_PLUS_CSNS_0
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSNS_VAF_V)
	cmd_seq	C_PLUS_CSNS_VAF_V
(5) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DEF
	sns_mode	SNS_MODE_VAF_FAX
	ctm_ena	NOT_USED
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSNS_QUERY)
	cmd_seq	C_PLUS_CSNS_QUERY
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSNS_5)
	cmd_seq	M_PLUS_CSNS_5
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(10) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CBST_14400_ASY_BTP)
	cmd_seq	C_PLUS_CBST_14400_ASY_BTP
(11) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_FAX_14400

	sns_mode	SNS_MODE_VAF_FAX
	ctm_ena	NOT_USED
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(13) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSNS_VFD)
	cmd_seq	C_PLUS_CSNS_VFD
(14) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DAT_14400_ASY_BTP
	sns_mode	SNS_MODE_VFD
	ctm_ena	NOT_USED
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.9 ECT: Explicit Call Transfer (ACI135-ACI138)

4.9.1 ACI135: Successful explicit call transfer

Description:

An active call and a call on hold will explicitly transfered.

Preamble:

ACI051A

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |       ACI_CMD_REQ        |                          |
     |     (cmd: AT+CHLD=4)     |                          |
     *=========================>*                          |
(2)  |                          |    MNCC_FACILITY_REQ     |
     |                          *=========================>*
(3)  |                          |   MNCC_DISCONNECT_IND    |
     |                          *<=========================*
(4)  |                          |    MNCC_FACILITY_IND     |
     |                          *<=========================*
(5)  |                          |   MNCC_DISCONNECT_IND    |
     |                          *<=========================*
(6)  |                          |       SIM_SYNC_REQ       |
     |                          *=========================>*
(7)  |       ACI_CMD_IND        |                          |
     |        (msg: OK)         |                          |
     *<=========================*                          |
(8)  |                          |    MNCC_RELEASE_CNF      |
     |                          *<=========================*
(9)  |                          |    MNCC_RELEASE_CNF      |
     |                          *<=========================*
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_4)
	cmd_seq	C_PLUS_CHLD_4
(2) MNCC_FACILITY_REQ		
	ti	NUM_0
	fac_inf	A_FAC_ECT
	ss_version	NUM_0
(3) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_NOT_PRES

(4) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_ECT_RES
(5) MNCC_DISCONNECT_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_NOT_PRES
(6) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(8) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(9) MNCC_RELEASE_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR

History: 20.05.99 AK Initial

4.9.2 ACI136: TIME OUT: explicit call transfer

Description:

An active call and a call on hold will explicitly transfered: however a time out occurs....

Preamble:

ACI051A

```
    APL                          ACI                          PS
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CHLD=4)      |                            |
      *===========================>*                            |
(2)   |                            |     MNCC_FACILITY_REQ      |
      |                            *===========================>*
TIMEOUT (15000)
(7)   |        ACI_CMD_IND         |                            |
      |        (msg: ERROR)        |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(10) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_4)
	cmd_seq	C_PLUS_CHLD_4
(11) MNCC_FACILITY_REQ		
	ti	NUM_0

	fac_inf	A_FAC_ECT
	ss_version	NUM_0
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

4.9.3 ACI137: Successful explicit call transfer (FTA 31.13.1.4)

Description:

An active call (yet only alerting !) and a call on hold will be explicitly transfered.

Preamble:

ACI001

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |          ACI_CMD_REQ         |                              |
     |       (cmd: AT+CLIR=2)       |                              |
     *=============================>*                              |
(2)  |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     *<=============================*                              |
(3)  |                              |        MNCC_SETUP_IND        |
     |                              *<=============================*
(4)  |          ACI_CMD_IND         |                              |
     |          (msg: RING)         |                              |
     *<=============================*                              |
(5)  |                              |        MNCC_ALERT_REQ        |
     |                              *=============================>*
(6)  |          ACI_CMD_REQ         |                              |
     |          (cmd: ATA)          |                              |
     *=============================>*                              |
(7)  |                              |        MNCC_SETUP_RES        |
     |                              *=============================>*
(10) |                              |        MNCC_SYNC_IND         |
     |                              *<=============================*
(9)  |                              |     MNCC_SETUP_COMPL_IND     |
     |                              *<=============================*
(18) |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     *<=============================*                              |
(3)  |          ACI_CMD_REQ         |                              |
     |       (cmd: ATD123456;)      |                              |
     *=============================>*                              |
(4)  |                              |        MNCC_HOLD_REQ         |
     |                              *=============================>*
(5)  |                              |        MNCC_HOLD_CNF         |
     |                              *<=============================*
(6)  |                              |        MNCC_SETUP_REQ        |
     |                              *=============================>*
(13) |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     *<=============================*                              |
(7)  |                              |     MNCC_CALL_PROCEED_IND    |
     |                              *<=============================*
(8)  |                              |      MNCC_PROGRESS_IND       |
     |                              *<=============================*
(9)  |                              |        MNCC_ALERT_IND        |
     |                              *<=============================*
(10) |                              |        MNCC_SYNC_IND         |
      |                           *<========================== *
(1)   |        ACI_CMD_REQ        |                            |
      |     (cmd: AT+CHLD=4)      |                            |
      *==========================>*                            |
(2)   |                           |      MNCC_FACILITY_REQ     |
      |                           *==========================> *
(3)   |                           |     MNCC_DISCONNECT_IND    |
      |                           *<========================== *
(4)   |                           |      MNCC_FACILITY_IND     |
      |                           *<========================== *
(5)   |                           |     MNCC_DISCONNECT_IND    |
      |                           *<========================== *
(7)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(8)   |                           |      MNCC_RELEASE_CNF      |
      |                           *<========================== *
(9)   |                           |      MNCC_RELEASE_CNF      |
      |                           *<========================== *
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(1) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(2) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(4) MNCC_ALERT_REQ		
	ti	NUM_8
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

cmd_len NUM_ELEMENTS(C_A)
cmd_seq C_A

(6) MNCC_SETUP_RES

ti NUM_8

(7) MNCC_SYNC_IND

ti NOT_PRESENT_8BIT
cause MNCC_CAUSE_CHANNEL_SYNC
chm S_CHN_SPEECH

(8) MNCC_SETUP_COMPL_IND

ti NUM_8
cause MNCC_CAUSE_SUCCESS

(14) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_OK)
cmd_seq M_OK

(15) ACI_CMD_REQ

cmd_src CMD_SRC_EXT
cmd_len
NUM_ELEMENTS(C_D_VOICE)
cmd_seq C_D_VOICE

(16) MNCC_HOLD_REQ

ti NUM_8

(17) MNCC_HOLD_CNF

ti NUM_8
cause
MNCC_CAUSE_HOLD_SUCCESS

(18) MNCC_SETUP_REQ

ti NUM_0
prio PRIO_NORM_CALL
ri RI_NOT_PRES
bcpara S_BS_VOICE
bcpara2 S_BS_NOT_PRESENT
called_party S_CLD_PARTY
called_party_sub
S_CLD_PARTY_SUB
clir_sup CLR_SUP
fac_inf NOT_USED

(13) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_OK)
cmd_seq M_OK

(19) MNCC_CALL_PROCEED_IND

ti NUM_0
progress_desc
PROG_NOT_PRES
ri RI_NOT_PRES
bcpara S_BS_VOICE
bcpara2 S_BS_NOT_PRESENT

(20) MNCC_PROGRESS_IND

ti NUM_0
progress_desc
PROG_NOT_PRES

(21) MNCC_ALERT_IND

ti NUM_0
progress_desc
PROG_NOT_PRES

(22) MNCC_SYNC_IND

ti NUM_0
cause
MNCC_CAUSE_CHANNEL_SYNC
chm S_CHN_SPEECH

(14) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_4)
cmd_seq	C_PLUS_CHLD_4

(15) MNCC_FACILITY_REQ

ti	NUM_8
fac_inf	A_FAC_ECT
ss_version	NUM_0

(16) MNCC_DISCONNECT_IND

ti	NUM_8
cause	MNCC_CAUSE_CALL_CLEAR
diagnostic	NOT_PRESENT_8BIT
progress_desc	PROG_NOT_PRES

(17) MNCC_FACILITY_IND

ti	NUM_8
fac_context	NOT_USED
fac_inf	A_FAC_ECT_RES

(18) MNCC_DISCONNECT_IND

ti	NUM_0
cause	MNCC_CAUSE_CALL_CLEAR
diagnostic	NOT_PRESENT_8BIT
progress_desc	PROG_NOT_PRES

(19) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(20) MNCC_RELEASE_CNF

ti	NUM_8
cause	MNCC_CAUSE_CALL_CLEAR

(21) MNCC_RELEASE_CNF

ti	NUM_0
cause	MNCC_CAUSE_CALL_CLEAR

4.9.4 ACI138: Explicit call transfer: network answers with reject component (FTA 31.13.1.5)

Description:

An active and a call on hold will be explicitly transfered: network does not allow it.

Preamble:

ACI001

```
    APL                            ACI                           PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: AT+CLIR=2)     |                           |
     *==========================>*                           |
(2)  |        ACI_CMD_IND        |                           |
     |          (msg: OK)        |                           |
     *<==========================*                           |
(3)  |                           |       MNCC_SETUP_IND      |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |         (msg: RING)       |                           |
     *<==========================*                           |
(5)  |                           |       MNCC_ALERT_REQ      |
     |                           *==========================>*
(6)  |        ACI_CMD_REQ        |                           |
     |         (cmd: ATA)        |                           |
     *==========================>*                           |
(7)  |                           |       MNCC_SETUP_RES      |
     |                           *==========================>*
(10) |                           |        MNCC_SYNC_IND      |
     |                           *<==========================*
(9)  |                           |    MNCC_SETUP_COMPL_IND   |
     |                           *<==========================*
(18) |        ACI_CMD_IND        |                           |
     |          (msg: OK)        |                           |
     *<==========================*                           |
(3)  |        ACI_CMD_REQ        |                           |
     |     (cmd: ATD123456;)     |                           |
     *==========================>*                           |
(4)  |                           |        MNCC_HOLD_REQ      |
     |                           *==========================>*
(5)  |                           |        MNCC_HOLD_CNF      |
     |                           *<==========================*
(6)  |                           |       MNCC_SETUP_REQ      |
     |                           *==========================>*
(13) |        ACI_CMD_IND        |                           |
     |          (msg: OK)        |                           |
     *<==========================*                           |
(7)  |                           |   MNCC_CALL_PROCEED_IND   |
     |                           *<==========================*
(8)  |                           |     MNCC_PROGRESS_IND     |
     |                           *<==========================*
(9)  |                           |       MNCC_ALERT_IND      |
     |                           *<==========================*
(10) |                           |        MNCC_SYNC_IND      |
      |                           *<==========================*
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+CHLD=4)      |                           |
      *==========================>*                           |
(2)   |                           |     MNCC_FACILITY_REQ     |
      |                           *==========================>*
(4)   |                           |     MNCC_FACILITY_IND     |
      |                           *<==========================*
(7)   |        ACI_CMD_IND        |                           |
      |       (msg: ERROR)        |                           |
      *<==========================*                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+CHLD=4)      |                           |
      *==========================>*                           |
(2)   |                           |     MNCC_FACILITY_REQ     |
      |                           *==========================>*
(4)   |                           |     MNCC_FACILITY_IND     |
      |                           *<==========================*
(7)   |        ACI_CMD_IND        |                           |
      |       (msg: ERROR)        |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(2) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(10) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(12) MNCC_ALERT_REQ		
	ti	NUM_8

(13) ACI_CMD_REQ

cmd_src CMD_SRC_EXT
cmd_len NUM_ELEMENTS(C_A)
cmd_seq C_A

(14) MNCC_SETUP_RES

ti NUM_8

(15) MNCC_SYNC_IND

ti NOT_PRESENT_8BIT
cause MNCC_CAUSE_CHANNEL_SYNC
chm S_CHN_SPEECH

(16) MNCC_SETUP_COMPL_IND

ti NUM_8
cause MNCC_CAUSE_SUCCESS

(23) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_OK)
cmd_seq M_OK

(24) ACI_CMD_REQ

cmd_src CMD_SRC_EXT
cmd_len
NUM_ELEMENTS(C_D_VOICE)
cmd_seq C_D_VOICE

(25) MNCC_HOLD_REQ

ti NUM_8

(26) MNCC_HOLD_CNF

ti NUM_8
cause
MNCC_CAUSE_HOLD_SUCCESS

(27) MNCC_SETUP_REQ

ti NUM_0
prio PRIO_NORM_CALL
ri RI_NOT_PRES
bcpara S_BS_VOICE
bcpara2 S_BS_NOT_PRESENT
called_party S_CLD_PARTY
called_party_sub
S_CLD_PARTY_SUB
clir_sup CLR_SUP
fac_inf NOT_USED

(22) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_OK)
cmd_seq M_OK

(28) MNCC_CALL_PROCEED_IND

ti NUM_0
progress_desc
PROG_NOT_PRES
ri RI_NOT_PRES
bcpara S_BS_VOICE
bcpara2 S_BS_NOT_PRESENT

(29) MNCC_PROGRESS_IND

ti NUM_0

		progress_desc
	PROG_NOT_PRES	
(30) MNCC_ALERT_IND		
		ti NUM_0
		progress_desc
	PROG_NOT_PRES	
(31) MNCC_SYNC_IND		
		ti NUM_0
		cause
	MNCC_CAUSE_CHANNEL_SYNC	
		chm S_CHN_SPEECH
(23) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_4)
	cmd_seq	C_PLUS_CHLD_4
(24) MNCC_FACILITY_REQ		
	ti	NUM_8
	fac_inf	A_FAC_ECT
	ss_version	NUM_0
(25) MNCC_FACILITY_IND		
	ti	NUM_8
	fac_context	NOT_USED
	fac_inf	A_FAC_ECT_REJ_RES
(32) ACI_CMD_IND		
		cmd_len
	NUM_ELEMENTS(M_ERROR)	
		cmd_seq M_ERROR
(26) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_4)
	cmd_seq	C_PLUS_CHLD_4
(27) MNCC_FACILITY_REQ		
	ti	NUM_8
	fac_inf	A_FAC_ECT_2
	ss_version	NUM_0
(28) MNCC_FACILITY_IND		
	ti	NUM_8
	fac_context	NOT_USED
	fac_inf	A_FAC_ECT_REJ_RES
(29) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 28.02.02 CLB Initial

4.10 Fixed Dialling (ACI0139-ACI149)

4.10.1 ACI139: Power On

Description:

activate SIM card at power on

Preamble:

ACI001

```
    APL                         ACI                           PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |       (cmd: +CFUN=1)       |                            |
     *===========================>*                            |
(2)  |                            |     SIM_ACTIVATE_REQ       |
     |                            *===========================>*
(3)  |                            |     SIM_ACTIVATE_CNF       |
     |                            *<===========================*
(4)  |                            |    SIM_MMI_INSERT_IND      |
     |                            *<===========================*
(5)  |                            |       SIM_READ_REQ         |
     |                            *===========================>*
(6)  |                            |       SIM_READ_CNF         |
     |                            *<===========================*
(7)  |                            |       SIM_READ_REQ         |
     |                            *===========================>*
(8)  |                            |       SIM_READ_CNF         |
     |                            *<===========================*
(9)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CFUN_FULL)	
	cmd_seq	C_PLUS_CFUN_FULL
(2) SIM_ACTIVATE_REQ		
	proc	SIM_INITIALISATION
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10
	ec_code	NOT_USED
	pref_lang	NOT_USED

(4) SIM_MMI_INSERT_IND

	func	SIM_ADN_ENABLED
	sim_serv	NOT_USED
	imsi_field	NOT_USED
	pref_plmn	NOT_USED
	phase	NOT_USED
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED

(5) SIM_READ_REQ

	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ECC
	length	NOT_PRESENT_8BIT
	max_length	NUM_0

(6) SIM_READ_CNF

	datafield	SIM_ECC
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_ECC_FIELD

(7) SIM_READ_REQ

	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_AD
	length	NOT_PRESENT_8BIT
	max_length	NUM_0

(8) SIM_READ_CNF

	datafield	SIM_AD
	cause	SIM_NO_ERROR
	length	NUM_12
	trans_data	A_AD_FIELD_CI_DISABLED

(9) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	27.07.99	ACI	Initial

4.10.2 ACI140: Enable FDN with PIN 2 Entry

Description:

Enable FDN. PIN 2 is verified upon entry request.

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |   (cmd: AT+CLCK="FD",...)  |                            |
     *===========================>*                            |
(2)  |                            |      SIM_ACTIVATE_REQ      |
     |                            *===========================>*
(3)  |                            |      SIM_ACTIVATE_CNF      |
     |                            *<===========================*
(4)  |                            |     SIM_MMI_INSERT_IND     |
     |                            *<===========================*
(5)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(6)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(7)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(8)  |         ACI_CMD_REQ        |                            |
     |   (cmd: AT+CLCK="FD",...)  |                            |
     *===========================>*                            |
(9)  |         ACI_CMD_IND        |                            |
     |       (msg: +CLCK: 1)      |                            |
     *<===========================*                            |
(10) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLCK_FD_ENA)	
	cmd_seq	C_PLUS_CLCK_FD_ENA
(2) SIM_ACTIVATE_REQ		
	proc	SIM_FDN_ENABLE
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_10

pin2_cnt	NUM_3
puk2_cnt	NUM_10
ec_code	NOT_USED
pref_lang	NOT_USED

(4) SIM_MMI_INSERT_IND

func	SIM_FDN_ENABLED
sim_serv	NOT_USED
imsi_field	NOT_USED
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(6) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_ECC
length	NOT_PRESENT_8BIT
max_length	NUM_0

(7) SIM_READ_CNF

datafield	SIM_ECC
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_ECC_FIELD

(8) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_FD_QUERY)
cmd_seq	C_PLUS_CLCK_FD_QUERY

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CLCK_FD_ENA)
cmd_seq	M_PLUS_CLCK_FD_ENA

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 23.06.99 AK Initial

4.10.3 ACI141: Enable FDN no PIN 2 needed

Description:

Enable FDN. PIN 2 is not needed.

Preamble:

ACI139

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |         ACI_CMD_REQ        |                             |
     |   (cmd: AT+CLCK="FD",...)  |                             |
     *===========================>*                             |
(2)  |                            |      SIM_ACTIVATE_REQ       |
     |                            *===========================>*
(3)  |                            |      SIM_ACTIVATE_CNF       |
     |                            *<===========================*
(4)  |                            |     SIM_MMI_INSERT_IND      |
     |                            *<===========================*
(5)  |         ACI_CMD_IND        |                             |
     |          (msg: OK)         |                             |
     *<===========================*                             |
(6)  |                            |        SIM_READ_REQ         |
     |                            *===========================>*
(7)  |                            |        SIM_READ_CNF         |
     |                            *<===========================*
(8)  |         ACI_CMD_REQ        |                             |
     |   (cmd: AT+CLCK="FD",...)  |                             |
     *===========================>*                             |
(9)  |         ACI_CMD_IND        |                             |
     |       (msg: +CLCK: 1)      |                             |
     *<===========================*                             |
(10) |         ACI_CMD_IND        |                             |
     |          (msg: OK)         |                             |
     *<===========================*                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLCK_FD_ENA)	
	cmd_seq	C_PLUS_CLCK_FD_ENA
(2) SIM_ACTIVATE_REQ		
	proc	SIM_FDN_ENABLE
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_10

pin2_cnt	NUM_3
puk2_cnt	NUM_10
ec_code	NOT_USED
pref_lang	NOT_USED

(4) SIM_MMI_INSERT_IND

func	SIM_FDN_ENABLED
sim_serv	NOT_USED
imsi_field	NOT_USED
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(6) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_ECC
length	NOT_PRESENT_8BIT
max_length	NUM_0

(7) SIM_READ_CNF

datafield	SIM_ECC
cause	SIM_NO_ERROR
length	NUM_12
trans_data	A_ECC_FIELD

(8) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_FD_QUERY)
cmd_seq	C_PLUS_CLCK_FD_QUERY

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CLCK_FD_ENA)
cmd_seq	M_PLUS_CLCK_FD_ENA

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 23.06.99 AK Initial

4.10.4 ACI142: Enable FDN with wrong PIN 2 Entry

Description:

Enable FDN. PIN 2 is verified upon entry request. PIN 2 is false.

Preamble:

ACI001

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |  (cmd: AT+CLCK="FD",...) |                          |
     *==========================>*                          |
(2)  |                          |      SIM_ACTIVATE_REQ    |
     |                          *==========================>*
(3)  |                          |      SIM_ACTIVATE_CNF    |
     |                          *<==========================*
(4)  |                          |     SIM_VERIFY_PIN_REQ   |
     |                          *==========================>*
(5)  |                          |     SIM_VERIFY_PIN_CNF   |
     |                          *<==========================*
(6)  |        ACI_CMD_IND       |                          |
     |        (msg: ERROR)      |                          |
     *<==========================*                          |
     |                          |                          |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_FD_ENA)
		cmd_seq	C_PLUS_CLCK_FD_ENA
(2)	SIM_ACTIVATE_REQ		
		proc	SIM_FDN_ENABLE
		mmi_pro_file	NOT_USED
		stk_pro_file	NOT_USED
(3)	SIM_ACTIVATE_CNF		
		cause	SIM_CAUSE_PIN2_EXPECT
		pin_cnt	NUM_3
		puk_cnt	NUM_10
		pin2_cnt	NUM_3
		puk2_cnt	NUM_10
		ec_code	NOT_USED
		pref_lang	NOT_USED
(4)	SIM_VERIFY_PIN_REQ		
		source	SRC_MMI
		pin	A_PIN_12534
		pin_id	PHASE_2_PIN_2
(5)	SIM_VERIFY_PIN_CNF		
		cause	SIM_CAUSE_PIN2_EXPECT

Primitive	Parameter	Value
	pin_id	PHASE_2_PIN_2
	pin_cnt	NUM_3
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 23.06.99 AK Initial

4.10.5 ACI143: Single Voice Call with failed FDN Check

Description:

Mobile originated voice call establishment with failed FDN check

Preamble:

ACI140

```
    APL                           ACI                           PS
      |                            |                             |
(1)   |        ACI_CMD_REQ         |                             |
      |      (cmd: AT+CLIR=2)      |                             |
      *===========================>*                             |
(2)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
(3)   |        ACI_CMD_REQ         |                             |
      |      (cmd: AT+COLP=1)      |                             |
      *===========================>*                             |
(4)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
(5)   |        ACI_CMD_REQ         |                             |
      |     (cmd: ATD123456;)      |                             |
      *===========================>*                             |
(6)   |        ACI_CMD_IND         |                             |
      |        (msg: ERROR)        |                             |
      *<===========================*                             |
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE_CLIR)
	cmd_seq	C_D_VOICE_CLIR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 23.06.99 AK Initial

4.10.6 ACI144: Disable FDN no PIN 2 Entry

Description:

Disable FDN after FDN was enabled. PIN 2 is not needed.

Preamble:

ACI141

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |   (cmd: AT+CLCK="FD",...)   |                             |
     *===========================> *                             |
(2)  |                             |      SIM_ACTIVATE_REQ       |
     |                             *===========================> *
(3)  |                             |      SIM_ACTIVATE_CNF       |
     |                             *<=========================== *
(4)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
(5)  |         ACI_CMD_REQ         |                             |
     |   (cmd: AT+CLCK="FD",...)   |                             |
     *===========================> *                             |
(6)  |         ACI_CMD_IND         |                             |
     |       (msg: +CLCK: 1)       |                             |
     *<=========================== *                             |
(7)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CLCK_FD_DIS)	
	cmd_seq	C_PLUS_CLCK_FD_DIS

(2) SIM_ACTIVATE_REQ

proc	SIM_FDN_DISABLE
mmi_pro_file	NOT_USED
stk_pro_file	NOT_USED

(3) SIM_ACTIVATE_CNF

cause	SIM_NO_ERROR
pin_cnt	NUM_3
puk_cnt	NUM_10
pin2_cnt	NUM_3
puk2_cnt	NUM_10
ec_code	NOT_USED
pref_lang	NOT_USED

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len NUM_ELEMENTS(C_PLUS_CLCK_FD_QUERY)	
cmd_seq	C_PLUS_CLCK_FD_QUERY

(6) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_PLUS_CLCK_FD_DIS)	
cmd_seq	M_PLUS_CLCK_FD_DIS

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 23.06.99 AK Initial

4.10.7 ACI145: Enable FDN with no PIN 2 Entry

Description:

Enable FDN. PIN 2 is verified upon entry request. PIN 2 is false.

Preamble:

ACI001

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |  (cmd: AT+CLCK="FD",...)  |                           |
     *==========================>*                           |
(2)  |                           |     SIM_ACTIVATE_REQ      |
     |                           *==========================>*
(3)  |                           |     SIM_ACTIVATE_CNF      |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |       (msg: ERROR)        |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_FD_ENA2)
	cmd_seq	C_PLUS_CLCK_FD_ENA2
(2) SIM_ACTIVATE_REQ		
	proc	SIM_FDN_ENABLE
	mmi_pro_file	NOT_USED
	stk_pro_file	NOT_USED
(3) SIM_ACTIVATE_CNF		
	cause	SIM_CAUSE_PIN2_EXPECT
	pin_cnt	NUM_3
	puk_cnt	NUM_10
	pin2_cnt	NUM_3
	puk2_cnt	NUM_10
	ec_code	NOT_USED
	pref_lang	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 07.12.01 KGT Initial

4.11 Automatic Answer (ACI0150-ACI159)

4.11.1 ACI150: Automatic Answer

Description:

Incoming FAX call. Automatically answer the call after three rings

Preamble:

ACI001

```
    APL                         ACI                          PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |      (cmd: ATS0=3)        |                           |
      *==========================>*                           |
(2)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(3)   |                           |      MNCC_SETUP_IND       |
      |                           *<==========================*
(5)   |                           |      MNCC_ALERT_REQ       |
      |                           *==========================>*
(4)   |       ACI_CMD_IND         |                           |
      |       (msg: RING)         |                           |
      *<==========================*                           |
TIMEOUT(2500)
(6)   |       ACI_CMD_IND         |                           |
      |       (msg: RING)         |                           |
      *<==========================*                           |
TIMEOUT(2500)
(7)   |       ACI_CMD_IND         |                           |
      |       (msg: RING)         |                           |
      *<==========================*                           |
TIMEOUT(5000)
(8)   |                           |      MNCC_SETUP_RES       |
      |                           *==========================>*
(9)   |                           |      MNCC_SYNC_IND        |
      |                           *<==========================*
(10)  |                           |   MNCC_SETUP_COMPL_IND    |
      |                           *<==========================*
(11)  |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(12)  |                           |     RA_ACTIVATE_REQ       |
      |                           *==========================>*
(13)  |                           |     RA_ACTIVATE_CNF       |
      |                           *<==========================*
(14)  |                           |     T30_ACTIVATE_REQ      |
      |                           *==========================>*
(15)  |                           |     T30_ACTIVATE_CNF      |
      |                           *<==========================*
(16)  |                           |      T30_CONFIG_REQ       |
      |                           *==========================>*
(17)  |                           |       T30_CAP_REQ         |
      |                     *=========================> *
(18) |                     |        T30_CAP_IND       |
      |                     * <========================*
(19) |       ACI_CMD_IND   |                          |
      |        (msg: OK)    |                          |
      * <===================*                          |
      |                     |                          |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_S0_3)
		cmd_seq	C_S0_3
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	MNCC_SETUP_IND		
		ti	NUM_8
		ri	RI_CIRCULAR
		bcpara	S_BS_FAX
		bcpara2	S_BS_VOICE
		progress_desc	PROG_NOT_PRES
		sig	SIG_RING_BACK_TONE_ON
		calling_party	S_CLG_PARTY
		calling_party_sub	S_CLG_PARTY_SUB
		called_party	S_CLD_PARTY
		called_party_sub	S_CLD_PARTY_SUB
		redirecting_party	NOT_USED
		redirecting_party_sub	NOT_USED
(4)	MNCC_ALERT_REQ		
		ti	NUM_8
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_RING)
		cmd_seq	M_RING
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_RING)
		cmd_seq	M_RING
(7)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_RING)
		cmd_seq	M_RING
(8)	MNCC_SETUP_RES		
		ti	NUM_8
(9)	MNCC_SYNC_IND		
		ti	NOT_PRESENT_8BIT
		cause	MNCC_CAUSE_CHANNEL_SYNC
		chm	S_CHN_FULL_9600
(10)	MNCC_SETUP_COMPL_IND		
		ti	NUM_8
		cause	MNCC_CAUSE_SUCCESS

(11)	SIM_SYNC_REQ		
		synccs	SYNC_START_CALL
(12)	RA_ACTIVATE_REQ		
		model	RA_MODEL_FAX
		tra_rate	TRA_FULLRATE_9600
		user_rate	URA_9600
		ndb	NUM_8
		nsb	NUM_1
(13)	RA_ACTIVATE_CNF		
		ack_flg	RA_ACK
(14)	T30_ACTIVATE_REQ		
		trans_rate	NUM_9600
		half_rate	NUM_0
		threshold	NUM_5A
		frames_per_prim	NUM_3
		bitorder	NUM_0
(15)	T30_ACTIVATE_CNF	buf_size_rx	NUM_4800
		buf_size_tx	NUM_4800
(16)	T30_CONFIG_REQ		
		hdlc_report	NUM_1
		test_mode	NOT_USED
(17)	T30_CAP_REQ		
		hdlc_info	NOT_USED
(18)	T30_CAP_IND		
		hdlc_info	S_HDLC_DCS
(19)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 25.06.99 AK Initial

4.11.2 ACI151: Automatic Answer enabled but manual answer performed

Description:

Incoming FAX call. Manually answer after first ring

Preamble:

ACI001

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |        (cmd: ATS0=3)        |                             |
     *===========================> *                             |
(2)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
(3)  |                             |       MNCC_SETUP_IND        |
     |                             * <===========================*
(4)  |         ACI_CMD_IND         |                             |
     |         (msg: RING)         |                             |
     * <===========================*                             |
(5)  |                             |       MNCC_ALERT_REQ        |
     |                             *===========================> *
(6)  |         ACI_CMD_REQ         |                             |
     |         (cmd: ATA)          |                             |
     *===========================> *                             |
(7)  |                             |       MNCC_SETUP_RES        |
     |                             *===========================> *
(8)  |                             |        MNCC_SYNC_IND        |
     |                             * <===========================*
(9)  |                             |    MNCC_SETUP_COMPL_IND     |
     |                             * <===========================*
(10) |                             |        SIM_SYNC_REQ         |
     |                             *===========================> *
(11) |                             |       RA_ACTIVATE_REQ       |
     |                             *===========================> *
(12) |                             |       RA_ACTIVATE_CNF       |
     |                             * <===========================*
(13) |                             |      T30_ACTIVATE_REQ       |
     |                             *===========================> *
(14) |                             |      T30_ACTIVATE_CNF       |
     |                             * <===========================*
(15) |                             |       T30_CONFIG_REQ        |
     |                             *===========================> *
(16) |                             |         T30_CAP_REQ         |
     |                             *===========================> *
(17) |                             |         T30_CAP_IND         |
     |                             * <===========================*
(18) |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(17) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_S0_3)
	cmd_seq	C_S0_3
(18) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(19) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_CIRCULAR
	bcpara	S_BS_FAX
	bcpara2	S_BS_VOICE
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(20) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(21) MNCC_ALERT_REQ		
	ti	NUM_8
(22) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_A)
	cmd_seq	C_A
(23) MNCC_SETUP_RES		
	ti	NUM_8
(24) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_FULL_9600
(25) MNCC_SETUP_COMPL_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_SUCCESS
(26) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(27) RA_ACTIVATE_REQ		
	model	RA_MODEL_FAX
	tra_rate	TRA_FULLRATE_9600
	user_rate	URA_9600
	ndb	NUM_8
	nsb	NUM_1
(28) RA_ACTIVATE_CNF		
	ack_flg	RA_ACK

(29)	T30_ACTIVATE_REQ		
		trans_rate	NUM_9600
		half_rate	NUM_0
		threshold	NUM_5A
		frames_per_prim	NUM_3
		bitorder	NUM_0
(30)	T30_ACTIVATE_CNF	buf_size_rx	NUM_4800
		buf_size_tx	NUM_4800
(31)	T30_CONFIG_REQ		
		hdlc_report	NUM_1
		test_mode	NOT_USED
(32)	T30_CAP_REQ		
		hdlc_info	NOT_USED
(33)	T30_CAP_IND		
		hdlc_info	S_HDLC_DCS
(34)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 25.06.99 AK Initial

4.11.3 ACI152: Automatic Answer enabled but hang up by remote party

Description:

Incoming FAX call. Remote Party disconnects before automatic answering.

Preamble:

ACI001

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |        (cmd: ATS0=3)        |                             |
     *===========================> *                             |
(2)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
(3)  |                             |       MNCC_SETUP_IND        |
     |                             *<=========================== *
(5)  |                             |       MNCC_ALERT_REQ        |
     |                             *===========================> *
(4)  |         ACI_CMD_IND         |                             |
     |        (msg: RING)          |                             |
     *<=========================== *                             |
TIMEOUT(2500)
(6)  |         ACI_CMD_IND         |                             |
     |        (msg: RING)          |                             |
     *<=========================== *                             |
(7)  |                             |     MNCC_DISCONNECT_IND     |
     |                             *<=========================== *
(8)  |                             |      MNCC_RELEASE_CNF       |
     |                             *<=========================== *
     |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_S0_3)
		cmd_seq	C_S0_3
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	MNCC_SETUP_IND		
		ti	NUM_8
		ri	RI_CIRCULAR
		bcpara	S_BS_FAX
		bcpara2	S_BS_VOICE
		progress_desc	PROG_NOT_PRES
		sig	SIG_RING_BACK_TONE_ON
		calling_party	S_CLG_PARTY
		calling_party_sub	S_CLG_PARTY_SUB
		called_party	S_CLD_PARTY
		called_party_sub	S_CLD_PARTY_SUB
		redirecting_party	NOT_USED
		redirecting_party_sub	NOT_USED
(4)	MNCC_ALERT_REQ		
		ti	NUM_8
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_RING)
		cmd_seq	M_RING
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_RING)
		cmd_seq	M_RING
(7)	MNCC_DISCONNECT_IND		
		ti	NUM_8
		cause	MNCC_CAUSE_CALL_CLEAR
		diagnostic	NOT_PRESENT_8BIT
		progress_desc	PROG_NOT_PRES
(8)	MNCC_RELEASE_CNF		
		ti	NUM_8
		cause	MNCC_CAUSE_CALL_CLEAR

History: 25.06.99 AK Initial

4.11.4 ACI153: Automatic Answer enabled but hang up by local party UDUB

Description:

Incoming FAX call. Local Party disconnects before automatic answering. User determined user busy

Preamble:

ACI001

Variants: <A>....<C>

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |       (cmd: ATS0=3)        |                            |
      *==========================> *                            |
(2)   |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      * <========================== *                            |
(3)   |                            |       MNCC_SETUP_IND       |
      |                            * <========================== *
(5)   |                            |       MNCC_ALERT_REQ       |
      |                            *==========================> *
(4)   |        ACI_CMD_IND         |                            |
      |        (msg: RING)         |                            |
      * <========================== *                            |
TIMEOUT(2500)
(6)   |        ACI_CMD_IND         |                            |
      |        (msg: RING)         |                            |
      * <========================== *                            |
(7)   |        ACI_CMD_REQ         |                            |
      |  (cmd: ATH/ATCHLD=0/ATZ)   |                            |
      *==========================> *                            |
(8)   |                            |    MNCC_DISCONNECT_REQ     |
      |                            *==========================> *
(9)   |                            |      MNCC_RELEASE_IND      |
      |                            * <========================== *
(10)  |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      * <========================== *                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_S0_3)
	cmd_seq	C_S0_3
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_CIRCULAR
	bcpara	S_BS_FAX
	bcpara2	S_BS_VOICE
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED

(4) MNCC_ALERT_REQ		
	ti	NUM_8
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_H)
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
<C>	cmd_len	NUM_ELEMENTS(C_Z)
<A>	cmd_seq	C_H
<B>	cmd_seq	C_PLUS_CHLD_0
<C>	cmd_seq	C_Z
(8) MNCC_DISCONNECT_REQ	ti	NUM_8
	cause	MNCC_CAUSE_USER_BUSY
	fac_inf	NOT_USED
	ss_version	NOT_USED
(9) MNCC_RELEASE_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_CALL_CLEAR
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	25.06.99	AK	Initial
	11.09.02	CLB	create C variant: with ATZ to replace ACI931.

4.11.5 ACI154: Automatic Answer enabled, call accepted and then aborted by local party

Description:

Incoming call. Local Party accepts and then disconnects before automatic answering using abort.

Preamble:

ACI001

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |       (cmd: ATS0=3)       |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(3)   |                           |       MNCC_SETUP_IND      |
      |                           *<==========================*
(4)   |        ACI_CMD_IND        |                           |
      |        (msg: RING)        |                           |
      *<==========================*                           |
(5)   |                           |       MNCC_ALERT_REQ      |
      |                           *==========================>*
(6)   |        ACI_CMD_REQ        |                           |
      |        (cmd: ATA)         |                           |
      *==========================>*                           |
(7)   |                           |       MNCC_SETUP_RES      |
      |                           *==========================>*
(8)   |                           |        SIM_SYNC_REQ       |
      |                           *==========================>*
(9)   |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(10)  |       ACI_ABORT_REQ       |                           |
      *==========================>*                           |
(11)  |                           |        SIM_SYNC_REQ       |
      |                           *==========================>*
(12)  |                           |    MNCC_DISCONNECT_REQ    |
      |                           *==========================>*
(13)  |                           |      MNCC_RELEASE_IND     |
      |                           *<==========================*
(14)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_S0_3)
	cmd_seq	C_S0_3

(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_CIRCULAR
	bcpara	S_BS_FAX
	bcpara2	S_BS_VOICE
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_RING)
	cmd_seq	M_RING
(5) MNCC_ALERT_REQ		
	ti	NUM_8
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_A)
	cmd_seq	C_A
(7) MNCC_SETUP_RES		
	ti	NUM_8
(8) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(9) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_FULL_9600
(10) ACI_ABORT_REQ		
	cmd_src	CMD_SRC_EXT
	cause	ABT_ABORT_CMD
(11) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(12) MNCC_DISCONNECT_REQ	ti	NUM_8
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(13) MNCC_RELEASE_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_CALL_CLEAR
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.09.99 AK Initial

4.12 DTMF tone generation (ACI160-ACI165)

4.12.1 ACI160: Send DTMF

Description:

Send DTMF digits during an active call

Preamble:

ACI050A

```
    APL                          ACI                          PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+VTS=1)       |                           |
     *===========================>*                           |
(2)  |                            |    MNCC_START_DTMF_REQ    |
     |                            *==========================>*
(3)  |                            |    MNCC_START_DTMF_CNF    |
     |                            *<==========================*
(4)  |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(5)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+VTS=a)       |                           |
     *===========================>*                           |
(6)  |                            |    MNCC_START_DTMF_REQ    |
     |                            *==========================>*
(7)  |                            |    MNCC_START_DTMF_CNF    |
     |                            *<==========================*
(8)  |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(9)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+VTS=*)       |                           |
     *===========================>*                           |
(10) |                            |    MNCC_START_DTMF_REQ    |
     |                            *==========================>*
(11) |                            |    MNCC_START_DTMF_CNF    |
     |                            *<==========================*
(12) |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(13) |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+VTS=#)       |                           |
     *===========================>*                           |
(14) |                            |    MNCC_START_DTMF_REQ    |
     |                            *==========================>*
(15) |                            |    MNCC_START_DTMF_CNF    |
     |                            *<==========================*
(16) |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(17) |        ACI_CMD_REQ         |                           |
      |       (cmd: AT+VTS=9)       |                             |
      *===========================>*                             |
(18)  |                             |    MNCC_START_DTMF_REQ      |
      |                             *===========================>*
(19)  |        ACI_ABORT_REQ        |                             |
      *===========================>*                             |
(20)  |         ACI_CMD_IND         |                             |
      |          (msg: OK)          |                             |
      *<===========================*                             |
      |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
		cmd_seq	C_PLUS_VTS_1
(2)	MNCC_START_DTMF_REQ		
		ti	NUM_0
		key	KEY_1
		dtmf_mod	DTMF_MOD_AUTO
(3)	MNCC_START_DTMF_CNF		
		ti	NUM_0
		key	KEY_1
		cause	MNCC_CAUSE_DTMF_START_SUCCESS
		dtmf_mod	DTMF_MOD_AUTO
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_VTS_A)
		cmd_seq	C_PLUS_VTS_A
(6)	MNCC_START_DTMF_REQ		
		ti	NUM_0
		key	KEY_A
		dtmf_mod	DTMF_MOD_AUTO
(7)	MNCC_START_DTMF_CNF		
		ti	NUM_0
		key	KEY_A
		cause	MNCC_CAUSE_DTMF_START_SUCCESS
		dtmf_mod	DTMF_MOD_AUTO
(8)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(9)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	

	NUM_ELEMENTS(C_PLUS_VTS_STAR)
cmd_seq	C_PLUS_VTS_STAR

(10) MNCC_START_DTMF_REQ

ti	NUM_0
key	KEY_STAR
dtmf_mod	DTMF_MOD_AUTO

(11) MNCC_START_DTMF_CNF

ti	NUM_0
key	KEY_STAR
cause	MNCC_CAUSE_DTMF_START_SUCCESS
dtmf_mod	DTMF_MOD_AUTO

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(13) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_VTS_HASH)
cmd_seq	C_PLUS_VTS_HASH

(14) MNCC_START_DTMF_REQ

ti	NUM_0
key	KEY_HASH
dtmf_mod	DTMF_MOD_AUTO

(15) MNCC_START_DTMF_CNF

ti	NUM_0
key	KEY_HASH
cause	MNCC_CAUSE_DTMF_START_SUCCESS
dtmf_mod	DTMF_MOD_AUTO

(16) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(17) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
cmd_seq	C_PLUS_VTS_1

(18) MNCC_START_DTMF_REQ

ti	NUM_0
key	KEY_1
dtmf_mod	DTMF_MOD_AUTO

(19) ACI_ABORT_REQ

cmd_src	CMD_SRC_EXT
cause	ABT_ABORT_CMD

(20) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	10.09.99	AK	Initial

4.12.2 ACI161: Send DTMF

Description:

Send DTMF digits while no call is call active.

Preamble:

ACI001

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |        ACI_CMD_REQ        |                            |
     |      (cmd: +CMEE=2)       |                            |
     *==========================>*                            |
(2)  |        ACI_CMD_IND        |                            |
     |         (msg: OK)         |                            |
     *<==========================*                            |
(3)  |        ACI_CMD_REQ        |                            |
     |      (cmd: AT+VTS=1)      |                            |
     *==========================>*                            |
(4)  |        ACI_CMD_IND        |                            |
     |        (msg: err)         |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CMEE_VERB)
		cmd_seq	C_PLUS_CMEE_VERB
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
		cmd_seq	C_PLUS_VTS_1
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERR_OPERATION)
		cmd_seq	M_ERR_OPERATION

History: 20.03.02 TLU Initial

4.12.3 ACI162: Send DTMF: FAILS: line edit problem ????

Description:

Send DTMF digits during an active call

Preamble:

ACI050A

```
    APL                          ACI                         PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |      (cmd: AT+VTS=1)      |                           |
      *==========================>*                           |
(2)   |                           |    MNCC_START_DTMF_REQ    |
      |                           *==========================>*
(3)   |                           |    MNCC_START_DTMF_CNF    |
      |                           *<==========================*
(4)   |       ACI_CMD_IND         |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(5)   |       ACI_CMD_REQ         |                           |
      |      (cmd: AT+VTS=C)      |                           |
      *==========================>*                           |
(6)   |                           |    MNCC_START_DTMF_REQ    |
      |                           *==========================>*
(7)   |                           |    MNCC_START_DTMF_CNF    |
      |                           *<==========================*
(8)   |       ACI_CMD_IND         |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(9)   |       ACI_CMD_REQ         |                           |
      |      (cmd: AT+VTS=D)      |                           |
      *==========================>*                           |
(10)  |       ACI_CMD_IND         |                           |
      |       (msg: ERROR)        |                           |
      *<==========================*                           |
(11)  |       ACI_CMD_REQ         |                           |
      |      (cmd: AT+VTS=1)      |                           |
      *==========================>*                           |
(12)  |                           |    MNCC_START_DTMF_REQ    |
      |                           *==========================>*
(13)  |                           |    MNCC_START_DTMF_CNF    |
      |                           *<==========================*
(14)  |       ACI_CMD_IND         |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(15)  |       ACI_CMD_REQ         |                           |
      |      (cmd: AT+VTS=1)      |                           |
      *==========================>*                           |
(16)  |                           |    MNCC_START_DTMF_REQ    |
      |                           *==========================>*
(17)  |      ACI_ABORT_REQ        |                           |
      *==========================>*                           |
(18)  |                           |    MNCC_START_DTMF_REQ    |
      |                           *==========================>*
(19)  |                           |    MNCC_START_DTMF_CNF    |
      |                              *<===========================*
(20) |          ACI_CMD_IND         |                            |
      |           (msg: OK)          |                            |
      *<=============================*                            |
(21) |          ACI_CMD_REQ         |                            |
      |        (cmd: AT+VTS=1)       |                            |
      *=============================>*                            |
(22) |                              |     MNCC_START_DTMF_REQ    |
      |                              *===========================>*
(23) |                              |     MNCC_START_DTMF_CNF    |
      |                              *<===========================*
(24) |          ACI_CMD_IND         |                            |
      |           (msg: OK)          |                            |
      *<=============================*                            |
      |                              |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
	cmd_seq	C_PLUS_VTS_1
(2) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_1
	dtmf_mod	DTMF_MOD_AUTO
(3) MNCC_START_DTMF_CNF		
	ti	NUM_0
	key	KEY_1
	cause	MNCC_CAUSE_NO_MS_CAUSE
	dtmf_mod	DTMF_MOD_AUTO
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_C)
	cmd_seq	C_PLUS_VTS_C
(6) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_C
	dtmf_mod	DTMF_MOD_AUTO
(7) MNCC_START_DTMF_CNF		
	ti	NUM_0
	key	KEY_C
	cause	MNCC_CAUSE_NO_MS_CAUSE
	dtmf_mod	DTMF_MOD_AUTO
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_D)
	cmd_seq	C_PLUS_VTS_D
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR
(11) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
	cmd_seq	C_PLUS_VTS_1
(12) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_1
	dtmf_mod	DTMF_MOD_AUTO
(13) MNCC_START_DTMF_CNF		
	ti	NUM_0
	key	KEY_1
	cause	MNCC_CAUSE_NO_MS_CAUSE
	dtmf_mod	DTMF_MOD_AUTO
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(15) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_1)
	cmd_seq	C_PLUS_VTS_1
(16) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_1
	dtmf_mod	DTMF_MOD_AUTO
(17) ACI_ABORT_REQ		
	cmd_src	CMD_SRC_EXT
	cause	ABT_ABORT_CMD
(18) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_1
	dtmf_mod	DTMF_MOD_MAN_STOP
(19) MNCC_START_DTMF_CNF		
	ti	NUM_0
	key	KEY_1
	cause	MNCC_CAUSE_NO_MS_CAUSE
	dtmf_mod	DTMF_MOD_MAN_STOP
(20) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(21) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_VTS_2)
	cmd_seq	C_PLUS_VTS_2

(22) MNCC_START_DTMF_REQ		
	ti	NUM_0
	key	KEY_2
	dtmf_mod	DTMF_MOD_AUTO
(23) MNCC_START_DTMF_CNF		
	ti	NUM_0
	key	KEY_2
	cause	MNCC_CAUSE_NO_MS_CAUSE
	dtmf_mod	DTMF_MOD_AUTO
(24) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:			
	12-11-02	BRZ	correction for DTMF C
	04-10-02	BRZ	Initial

4.13 SIM data access (ACI170-ACI179)

4.13.1 ACI170: Successful access of a SIM data field

Description:

Access of the SIM data field Efecc. Data received from the SIM is passed to the caller.

Preamble:

ACI001

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |          ACI_CMD_REQ         |                              |
     |      (cmd: AT+CRSM=...)      |                              |
     *============================> *                              |
(2)  |                              |       SIM_ACCESS_REQ         |
     |                              *============================> *
(3)  |                              |       SIM_ACCESS_CNF         |
     |                              * <============================*
(4)  |          ACI_CMD_IND         |                              |
     |       (msg: CRSM: ...)       |                              |
     * <============================*                              |
(5)  |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     * <============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CRSM_EFecc)	
	cmd_seq	C_PLUS_CRSM_EFecc

(2) SIM_ACCESS_REQ		
	source	SRC_MMI
	sim_command	SIM_READ_BINARY
	datafield	SIM_ECC
	p1	NUM_0
	p2	NUM_0
	p3	NUM_12
	trans_data	NOT_USED
(3) SIM_ACCESS_CNF		
	cause	SIM_NO_ERROR
	sw1	NUM_90
	sw2	NUM_0
	length	NUM_12
	trans_data	A_ECC_FIELD
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_EFecc)
	cmd_seq	M_PLUS_CRSM_EFecc
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 11.01.00 AK Initial

4.13.2 ACI171: Successful access of a SIM data record

Description:

Access of the SIM data record of EFadn. Data received from the SIM is passed to the caller.

Preamble:

ACI001

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |     (cmd: AT+CRSM=...)   |                          |
     *=========================>*                          |
(2)  |                          |      SIM_ACCESS_REQ      |
     |                          *=========================>*
(3)  |                          |      SIM_ACCESS_CNF      |
     |                          *<=========================*
(4)  |        ACI_CMD_IND       |                          |
     |      (msg: CRSM: ...)    |                          |
     *<=========================*                          |
(5)  |        ACI_CMD_IND       |                          |
     |         (msg: OK)        |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_CRSM_EFadn)
	cmd_seq	C_PLUS_CRSM_EFadn
(2) SIM_ACCESS_REQ		
	source	SRC_MMI
	sim_command	SIM_READ_RECORD
	datafield	SIM_ADN
	p1	NUM_1
	p2	NUM_5
	p3	NUM_20
	trans_data	NOT_USED
(3) SIM_ACCESS_CNF		
	cause	SIM_NO_ERROR
	sw1	NUM_90
	sw2	NUM_0
	length	NUM_20
	trans_data	A_ADN_REC
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_EFadn)
	cmd_seq	M_PLUS_CRSM_EFadn
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 11.01.00 AK Initial

4.13.3 ACI172: Successful write of a SIM data field

Description:

Write to the SIM data field of EFacm. Data is written to the SIM.

Preamble:

ACI001

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |       ACI_CMD_REQ        |                          |
     |    (cmd: AT+CRSM=...)    |                          |
     *=========================>*                          |
(2)  |                          |      SIM_ACCESS_REQ      |
     |                          *=========================>*
(3)  |                          |      SIM_ACCESS_CNF      |
     |                          *<=========================*
(4)  |       ACI_CMD_IND        |                          |
     |     (msg: CRSM: ...)     |                          |
     *<=========================*                          |
(5)  |       ACI_CMD_IND        |                          |
     |        (msg: OK)         |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CRSM_EFacm)
cmd_seq	C_PLUS_CRSM_EFacm

(2) SIM_ACCESS_REQ

source	SRC_MMI
sim_command	SIM_UPDATE_BINARY
datafield	SIM_ACM
p1	NUM_0
p2	NUM_0
p3	NUM_3
trans_data	A_ACM_FIELD

(3) SIM_ACCESS_CNF

cause	SIM_NO_ERROR
sw1	NUM_90
sw2	NUM_0
length	NOT_USED
trans_data	NOT_USED

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_EFacm)
cmd_seq	M_PLUS_CRSM_EFacm

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	11.01.00	AK	Initial

4.13.4 ACI173: Successful write of a SIM data record

Description:

Write of the SIM data record to EFsms. Data is written to the SIM.

Preamble:

ACI001

```
     APL                        ACI                        PS
      |                          |                          |
(1)   |        ACI_CMD_REQ       |                          |
      |     (cmd: AT+CRSM=...)   |                          |
      *=========================>*                          |
(2)   |                          |      SIM_ACCESS_REQ      |
      |                          *=========================>*
(3)   |                          |      SIM_ACCESS_CNF      |
      |                          *<=========================*
(4)   |        ACI_CMD_IND       |                          |
      |      (msg: CRSM: ...)    |                          |
      *<=========================*                          |
(5)   |        ACI_CMD_IND       |                          |
      |         (msg: OK)        |                          |
      *<=========================*                          |
      |                          |                          |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CRSM_EFsms)
		cmd_seq	C_PLUS_CRSM_EFsms
(2)	SIM_ACCESS_REQ		
		source	SRC_MMI
		sim_command	SIM_UPDATE_RECORD
		datafield	SIM_SMS
		p1	NUM_1
		p2	NUM_5
		p3	NUM_10
		trans_data	A_SMS_REC
(3)	SIM_ACCESS_CNF		
		cause	SIM_NO_ERROR
		sw1	NUM_90
		sw2	NUM_0
		length	NOT_USED
		trans_data	NOT_USED
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_EFsms)
		cmd_seq	M_PLUS_CRSM_EFsms
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 11.01.00 AK Initial

4.13.5 ACI174: Unsuccessful access to SIM data

Description:

An access to the SIM is unsuccessful. An error code is returned.

Preamble:

ACI001

Variants: <A>....<D>

```
     APL                            ACI                             PS
      |                              |                              |
(1)   |         ACI_CMD_REQ          |                              |
      |      (cmd: AT+CMEE=2)        |                              |
      *============================> *                              |
(2)   |         ACI_CMD_IND          |                              |
      |          (msg: OK)           |                              |
      *<============================ *                              |
(3)   |         ACI_CMD_REQ          |                              |
      |     (cmd: AT+CRSM=...)       |                              |
      *============================> *                              |
(4)   |                              |        SIM_ACCESS_REQ        |
      |                              *============================> *
(5)   |                              |        SIM_ACCESS_CNF        |
      |                              *<============================ *
(6)   |         ACI_CMD_IND          |                              |
      |      (msg: CRSM: ...)        |                              |
      *<============================ *                              |
(6)   |         ACI_CMD_IND          |                              |
      |          (msg: OK)           |                              |
      *<============================ *                              |
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CMEE_VERB)
	cmd_seq	C_PLUS_CMEE_VERB
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CRSM_EFsms)
	cmd_seq	C_PLUS_CRSM_EFsms
(4) SIM_ACCESS_REQ		
	source	SRC_MMI
	sim_command	SIM_UPDATE_RECORD
	datafield	SIM_SMS
	p1	NUM_1
	p2	NUM_5
	p3	NUM_10
	trans_data	A_SMS_REC
(5) SIM_ACCESS_CNF		
<A>	cause	SIM_CAUSE_PIN1_EXPECT
<B>	cause	SIM_CAUSE_CARD_REMOVED
<C>	cause	SIM_CAUSE_PUK1_EXPECT
<D>	cause	SIM_CAUSE_DRV_CARDREJ
<A>	sw1	NUM_98

<B>	sw1	NUM_6F
<C>	sw1	NUM_98
<D>	sw1	NUM_98
<A>	sw2	NUM_4
<B>	sw2	NUM_0
<C>	sw2	NUM_4
<D>	sw2	NUM_40
	length	NOT_USED
	trans_data	NOT_USED
(6) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_PIN)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_FATAL)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_PIN)
<D>	cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_INV)
<A>	cmd_seq	M_PLUS_CRSM_PIN
<B>	cmd_seq	M_PLUS_CRSM_FATAL
<C>	cmd_seq	M_PLUS_CRSM_PIN
<D>	cmd_seq	M_PLUS_CRSM_INV
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 11.01.00 AK Initial

4.13.6 ACI175: Get response from SIM

Description:

Get SIM response data.

Preamble:

ACI001

```
     APL                           ACI                            PS
      |                             |                              |
(1)   |         ACI_CMD_REQ         |                              |
      |      (cmd: AT+CRSM=...)     |                              |
      *===========================> *                              |
(2)   |                             |        SIM_ACCESS_REQ        |
      |                             *===========================>  *
(3)   |                             |        SIM_ACCESS_CNF        |
      |                             * <=========================== *
(4)   |         ACI_CMD_IND         |                              |
      |       (msg: CRSM: ...)      |                              |
      * <========================== *                              |
(5)   |         ACI_CMD_IND         |                              |
      |          (msg: OK)          |                              |
      * <========================== *                              |
      |                             |                              |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len NUM_ELEMENTS(C_PLUS_CRSM_GetRes)	
cmd_seq	C_PLUS_CRSM_GetRes

(2) SIM_ACCESS_REQ

source	SRC_MMI
sim_command	SIM_GET_RESPONSE
datafield	SIM_FDN
p1	NOT_PRESENT_8BIT
p2	NOT_PRESENT_8BIT
p3	NUM_0
trans_data	NOT_USED

(3) SIM_ACCESS_CNF

cause	SIM_NO_ERROR
sw1	NUM_90
sw2	NUM_0
length	NUM_10
trans_data	A_RESP_DATA

(4) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_PLUS_CRSM_GetRes)	
cmd_seq	M_PLUS_CRSM_GetRes

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	11.01.00	AK	Initial

4.13.7 ACI176: Get status from SIM

Description:

Get SIM status.

Preamble:

ACI001

```
    APL                          ACI                          PS
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      |    (cmd: AT+CRSM=...)     |                            |
      *==========================>*                            |
(2)   |                           |       SIM_ACCESS_REQ       |
      |                           *==========================> *
(3)   |                           |       SIM_ACCESS_CNF       |
      |                           *<========================== *
(4)   |        ACI_CMD_IND        |                            |
      |     (msg: CRSM: ...)      |                            |
      *<========================= *                            |
(5)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<========================= *                            |
      |                           |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CRSM_Stat)
		cmd_seq	C_PLUS_CRSM_Stat
(2)	SIM_ACCESS_REQ		
		source	SRC_MMI
		sim_command	SIM_STATUS
		datafield	NOT_PRESENT_16BIT
		p1	NOT_PRESENT_8BIT
		p2	NOT_PRESENT_8BIT
		p3	NUM_0
		trans_data	NOT_USED
(3)	SIM_ACCESS_CNF		
		cause	SIM_NO_ERROR
		sw1	NUM_92
		sw2	NUM_90
		length	NUM_0
		trans_data	NOT_USED
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PLUS_CRSM_Stat)
		cmd_seq	M_PLUS_CRSM_Stat
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 11.01.00 AK Initial

4.14 Preferred PLMN list management (ACI180-ACI199)

4.14.1 ACI180: Read Preferred PLMN list

Description:

Preamble:

ACI001

Variants: <A>....<C>

```
       APL                              ACI                              PS
        |                                |                                |
        |                                |                                |
(1)     |         ACI_CMD_REQ            |                                |
        |        (cmd: AT+CPOL)          |                                |
        *==============================>*                                |
(2)     |         ACI_CMD_IND            |                                |
        |          (msg: OK)             |                                |
        *<==============================*                                |
(3)     |         ACI_CMD_REQ            |                                |
        |        (cmd: AT+CPOL)          |                                |
        *==============================>*                                |
(4)     |                                |         SIM_READ_REQ           |
        |                                *==============================>*
(5)     |                                |         SIM_READ_CNF           |
        |                                *<==============================*
(6)     |         ACI_CMD_IND            |                                |
        |     (msg: +CPOL: PLMN1)        |                                |
        *<==============================*                                |
(7)     |         ACI_CMD_IND            |                                |
        |     (msg: +CPOL: PLMN2)        |                                |
        *<==============================*                                |
(8)     |         ACI_CMD_IND            |                                |
        |     (msg: +CPOL: PLMN3)        |                                |
        *<==============================*                                |
(9)     |         ACI_CMD_IND            |                                |
        |     (msg: +CPOL: PLMN4)        |                                |
        *<==============================*                                |
(10)    |         ACI_CMD_IND            |                                |
        |     (msg: +CPOL: PLMN5)        |                                |
        *<==============================*                                |
(11)    |         ACI_CMD_IND            |                                |
        |          (msg: OK)             |                                |
        *<==============================*                                |
        |                                |                                |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_SHRT)
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_NUM)
<A>	cmd_seq	C_PLUS_CPOL_FRMT_LONG
<B>	cmd_seq	C_PLUS_CPOL_FRMT_SHRT
<C>	cmd_seq	C_PLUS_CPOL_FRMT_NUM
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_LNG)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_SHRT)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_NUM)
<A>	cmd_seq	M_PLUS_CPOL_PLMN1_LNG
<B>	cmd_seq	M_PLUS_CPOL_PLMN1_SHRT
<C>	cmd_seq	M_PLUS_CPOL_PLMN1_NUM
(7) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_LNG)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_SHRT)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_NUM)
<A>	cmd_seq	M_PLUS_CPOL_PLMN2_LNG
<B>	cmd_seq	M_PLUS_CPOL_PLMN2_SHRT
<C>	cmd_seq	M_PLUS_CPOL_PLMN2_NUM
(8) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_LNG)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_SHRT)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_NUM)
<A>	cmd_seq	M_PLUS_CPOL_PLMN3_LNG
<B>	cmd_seq	M_PLUS_CPOL_PLMN3_SHRT
<C>	cmd_seq	M_PLUS_CPOL_PLMN3_NUM
(9) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_LNG)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_SHRT)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_NUM)
<A>	cmd_seq	M_PLUS_CPOL_PLMN4_LNG
<B>	cmd_seq	M_PLUS_CPOL_PLMN4_SHRT
<C>	cmd_seq	M_PLUS_CPOL_PLMN4_NUM

(10)	ACI_CMD_IND		
	<A>	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_LNG)	
	<B>	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_SHRT)	
	<C>	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_NUM)	
	<A>	cmd_seq	M_PLUS_CPOL_PLMN5_LNG
	<B>	cmd_seq	M_PLUS_CPOL_PLMN5_SHRT
	<C>	cmd_seq	M_PLUS_CPOL_PLMN5_NUM
(11)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History:	07.10.99	AK	Initial

4.14.2 ACI181: Delete Entry in Preferred PLMN list, list alread read

Description:

Preamble:

ACI180A

```
    APL                          ACI                         PS
      |                           |                           |
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CPOL)       |                           |
      *==========================>*                           |
(2)   |                           |      SIM_UPDATE_REQ       |
      |                           *==========================>*
(3)   |                           |      SIM_UPDATE_CNF       |
      |                           *<==========================*
(4)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(5)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CPOL)       |                           |
      *==========================>*                           |
(6)   |        ACI_CMD_IND        |                           |
      |    (msg: +CPOL: PLMN2)    |                           |
      *<==========================*                           |
(7)   |        ACI_CMD_IND        |                           |
      |    (msg: +CPOL: PLMN3)    |                           |
      *<==========================*                           |
(8)   |        ACI_CMD_IND        |                           |
      |    (msg: +CPOL: PLMN4)    |                           |
      *<==========================*                           |
(9)   |        ACI_CMD_IND        |                           |
      |    (msg: +CPOL: PLMN5)    |                           |
      *<==========================*                           |
(10)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_DEL_2)
	cmd_seq	C_PLUS_CPOL_DEL_2
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_DEL
(3) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(6) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_LNG)	
	cmd_seq	M_PLUS_CPOL_PLMN2_LNG
(7) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_LNG)	
	cmd_seq	M_PLUS_CPOL_PLMN3_LNG
(8) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_LNG)	
	cmd_seq	M_PLUS_CPOL_PLMN4_LNG
(9) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_LNG)	
	cmd_seq	M_PLUS_CPOL_PLMN5_LNG
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.3 ACI182: Delete Entry in Preferred PLMN list, read list first

Description:

Preamble:

ACI001

```
       APL                         ACI                         PS
        |                           |                           |
        |                           |                           |
(1)     |        ACI_CMD_REQ        |                           |
        |      (cmd: AT+CPOL)       |                           |
        *==========================>*                           |
(2)     |                           |       SIM_READ_REQ        |
        |                           *==========================>*
(3)     |                           |       SIM_READ_CNF        |
        |                           *<==========================*
(4)     |                           |      SIM_UPDATE_REQ       |
        |                           *==========================>*
(5)     |                           |      SIM_UPDATE_CNF       |
        |                           *<==========================*
(6)     |        ACI_CMD_IND        |                           |
        |         (msg: OK)         |                           |
        *<==========================*                           |
(7)     |        ACI_CMD_REQ        |                           |
        |      (cmd: AT+CPOL)       |                           |
        *==========================>*                           |
(8)     |        ACI_CMD_IND        |                           |
        |    (msg: +CPOL: PLMN2)    |                           |
        *<==========================*                           |
(9)     |        ACI_CMD_IND        |                           |
        |    (msg: +CPOL: PLMN3)    |                           |
        *<==========================*                           |
(10)    |        ACI_CMD_IND        |                           |
        |    (msg: +CPOL: PLMN4)    |                           |
        *<==========================*                           |
(11)    |        ACI_CMD_IND        |                           |
        |    (msg: +CPOL: PLMN5)    |                           |
        *<==========================*                           |
(12)    |        ACI_CMD_IND        |                           |
        |         (msg: OK)         |                           |
        *<==========================*                           |
        |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_DEL_2)
	cmd_seq	C_PLUS_CPOL_DEL_2
(2) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(3) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL

(4) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_DEL
(5) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN2_NUM
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN3_NUM
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN4_NUM
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN5_NUM
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.4 ACI183: Write Entry in Preferred PLMN list, list alread read

Description:

Preamble:

ACI180A

```
    APL                          ACI                          PS
     |                            |                            |
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(2)  |                            |      SIM_UPDATE_REQ        |
     |                            *===========================>*
(3)  |                            |      SIM_UPDATE_CNF        |
     |                            *<===========================*
(4)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_REQ         |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(6)  |        ACI_CMD_IND         |                            |
     |     (msg: +CPOL: PLMN1)    |                            |
     *<===========================*                            |
(7)  |        ACI_CMD_IND         |                            |
     |     (msg: +CPOL: PLMN2)    |                            |
     *<===========================*                            |
(8)  |        ACI_CMD_IND         |                            |
     |   (msg: +CPOL: PLMN_NEW)   |                            |
     *<===========================*                            |
(9)  |        ACI_CMD_IND         |                            |
     |     (msg: +CPOL: PLMN4)    |                            |
     *<===========================*                            |
(10) |        ACI_CMD_IND         |                            |
     |     (msg: +CPOL: PLMN5)    |                            |
     *<===========================*                            |
(11) |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_OVR_3)
	cmd_seq	C_PLUS_CPOL_OVR_3
(2) SIM_UPDATE_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_OVR
(3) SIM_UPDATE_CNF		
	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
cmd_seq	C_PLUS_CPOL_Q

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_LNG)
cmd_seq	M_PLUS_CPOL_PLMN1_LNG

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_LNG)
cmd_seq	M_PLUS_CPOL_PLMN2_LNG

(8) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_OVR_LNG)
cmd_seq	M_PLUS_CPOL_PLMN_OVR_LNG

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_LNG)
cmd_seq	M_PLUS_CPOL_PLMN4_LNG

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_LNG)
cmd_seq	M_PLUS_CPOL_PLMN5_LNG

(11) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.5 ACI184: Write Entry in Preferred PLMN list, read list first

Description:

Preamble:

ACI001

```
    APL                         ACI                          PS
     |                           |                            |
     |                           |                            |
(1)  |        ACI_CMD_REQ        |                            |
     |      (cmd: AT+CPOL)       |                            |
     *==========================>*                            |
(2)  |                           |       SIM_READ_REQ         |
     |                           *===========================>*
(3)  |                           |       SIM_READ_CNF         |
     |                           *<===========================*
(4)  |                           |      SIM_UPDATE_REQ        |
     |                           *===========================>*
(5)  |                           |      SIM_UPDATE_CNF        |
     |                           *<===========================*
(6)  |        ACI_CMD_IND        |                            |
     |         (msg: OK)         |                            |
     *<==========================*                            |
(7)  |        ACI_CMD_REQ        |                            |
     |      (cmd: AT+CPOL)       |                            |
     *==========================>*                            |
(8)  |        ACI_CMD_IND        |                            |
     |    (msg: +CPOL: PLMN1)    |                            |
     *<==========================*                            |
(9)  |        ACI_CMD_IND        |                            |
     |    (msg: +CPOL: PLMN2)    |                            |
     *<==========================*                            |
(10) |        ACI_CMD_IND        |                            |
     |   (msg: +CPOL: PLMN_OVR)  |                            |
     *<==========================*                            |
(11) |        ACI_CMD_IND        |                            |
     |    (msg: +CPOL: PLMN4)    |                            |
     *<==========================*                            |
(12) |        ACI_CMD_IND        |                            |
     |    (msg: +CPOL: PLMN5)    |                            |
     *<==========================*                            |
(13) |        ACI_CMD_IND        |                            |
     |         (msg: OK)         |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CPOL_OVR_3)	
	cmd_seq	C_PLUS_CPOL_OVR_3
(2) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90

(3) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(4) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_OVR
(5) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN1_NUM
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN2_NUM
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_OVR_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN_OVR_NUM
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN4_NUM
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN5_NUM
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.6 ACI185: Write next free Entry in Preferred PLMN list, list alread read

Description:

Preamble:

ACI180A

```
    APL                           ACI                           PS
     |                             |                             |
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |        (cmd: AT+CPOL)       |                             |
     *===========================> *                             |
(2)  |                             |        SIM_UPDATE_REQ       |
     |                             *===========================> *
(3)  |                             |        SIM_UPDATE_CNF       |
     |                             *<=========================== *
(4)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
(5)  |         ACI_CMD_REQ         |                             |
     |        (cmd: AT+CPOL)       |                             |
     *===========================> *                             |
(6)  |         ACI_CMD_IND         |                             |
     |    (msg: +CPOL: PLMN_NEW)   |                             |
     *<=========================== *                             |
(7)  |         ACI_CMD_IND         |                             |
     |     (msg: +CPOL: PLMN1)     |                             |
     *<=========================== *                             |
(8)  |         ACI_CMD_IND         |                             |
     |     (msg: +CPOL: PLMN2)     |                             |
     *<=========================== *                             |
(9)  |         ACI_CMD_IND         |                             |
     |     (msg: +CPOL: PLMN3)     |                             |
     *<=========================== *                             |
(10) |         ACI_CMD_IND         |                             |
     |     (msg: +CPOL: PLMN4)     |                             |
     *<=========================== *                             |
(11) |         ACI_CMD_IND         |                             |
     |     (msg: +CPOL: PLMN5)     |                             |
     *<=========================== *                             |
(12) |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

		NUM_ELEMENTS(C_PLUS_CPOL_NEW_3)
	cmd_seq	C_PLUS_CPOL_NEW_3
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_NEW
(3) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_NEW_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN_NEW_LNG
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN1_LNG
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN2_LNG
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN3_LNG
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN4_LNG
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN5_LNG
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.7 ACI186: Write Entry in Preferred PLMN list, read list first

Description:

Preamble:

ACI001

```
    APL                          ACI                          PS
      |                           |                           |
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CPOL)       |                           |
      *==========================>*                           |
(2)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(3)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(4)   |                           |      SIM_UPDATE_REQ       |
      |                           *==========================>*
(5)   |                           |      SIM_UPDATE_CNF       |
      |                           *<==========================*
(6)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(7)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT+CPOL)       |                           |
      *==========================>*                           |
(8)   |        ACI_CMD_IND        |                           |
      |  (msg: +CPOL: PLMN_NEW)   |                           |
      *<==========================*                           |
(9)   |        ACI_CMD_IND        |                           |
      |   (msg: +CPOL: PLMN1)     |                           |
      *<==========================*                           |
(10)  |        ACI_CMD_IND        |                           |
      |   (msg: +CPOL: PLMN2)     |                           |
      *<==========================*                           |
(11)  |        ACI_CMD_IND        |                           |
      |   (msg: +CPOL: PLMN3)     |                           |
      *<==========================*                           |
(12)  |        ACI_CMD_IND        |                           |
      |   (msg: +CPOL: PLMN4)     |                           |
      *<==========================*                           |
(13)  |        ACI_CMD_IND        |                           |
      |   (msg: +CPOL: PLMN5)     |                           |
      *<==========================*                           |
(14)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_NEW_3)
	cmd_seq	C_PLUS_CPOL_NEW_3
(2) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(3) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(4) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_NEW
(5) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_NEW_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN_NEW_NUM
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN1_NUM
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN2_NUM
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN3_NUM
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_NUM)
	cmd_seq	M_PLUS_CPOL_PLMN4_NUM
(13) ACI_CMD_IND		
	cmd_len	

	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_NUM)	
	cmd_seq	M_PLUS_CPOL_PLMN5_NUM
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.8 ACI187: Test Number of Entries of Preferred PLMN list, list alread read

Description:

Preamble:

ACI180A

```
    APL                          ACI                          PS
     |                            |                            |
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *==========================> *                            |
(2)  |         ACI_CMD_IND        |                            |
     |       (msg: +CPOL: )       |                            |
     *<========================== *                            |
(3)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_T)
	cmd_seq	C_PLUS_CPOL_T
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_T)
	cmd_seq	M_PLUS_CPOL_T
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.9 ACI188: Test Number of Entries of Preferred PLMN list, read list first

Description:

Preamble:

ACI001

```
    APL                           ACI                          PS
     |                             |                            |
     |                             |                            |
(1)  |         ACI_CMD_REQ         |                            |
     |       (cmd: AT+CPOL)        |                            |
     *===========================> *                            |
(2)  |                             |        SIM_READ_REQ        |
     |                             *===========================>*
(3)  |                             |        SIM_READ_CNF        |
     |                             *<===========================*
(4)  |         ACI_CMD_IND         |                            |
     |       (msg: +CPOL: )        |                            |
     *<===========================*                             |
(5)  |         ACI_CMD_IND         |                            |
     |         (msg: OK)           |                            |
     *<===========================*                             |
     |                             |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_T)
		cmd_seq	C_PLUS_CPOL_T
(2)	SIM_READ_REQ	source	SRC_MMI
		offset	NUM_0
		datafield	SIM_PLMNSEL
		length	NOT_PRESENT_8BIT
		max_length	NUM_DEC_90
(3)	SIM_READ_CNF	datafield	SIM_PLMNSEL
		cause	SIM_NO_ERROR
		length	NUM_27
		trans_data	A_EF_PLMNSEL
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_T)
		cmd_seq	M_PLUS_CPOL_T
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.10 ACI189: Read Preferred PLMN list, compact mode

Description:

Preamble: ACI001

```
     APL                         ACI                          PS
      |                           |                            |
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(2)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
(3)   |        ACI_CMD_REQ        |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(4)   |                           |        SIM_READ_REQ        |
      |                           *===========================>*
(5)   |                           |        SIM_READ_CNF        |
      |                           *<===========================*
(6)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN1)    |                            |
      *<==========================*                            |
(7)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN2)    |                            |
      *<==========================*                            |
(8)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN3)    |                            |
      *<==========================*                            |
(9)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN4)    |                            |
      *<==========================*                            |
(10)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN5)    |                            |
      *<==========================*                            |
(11)  |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0

	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN1_CMP
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN3_CMP
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN4_CMP
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN5_CMP
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 07.10.99 AK Initial

4.14.11 ACI190: Delete Entry in Preferred PLMN list, list alread read compact mode

Description:

Preamble:

ACI189

```
      APL                          ACI                          PS
       |                            |                            |
       |                            |                            |
(1)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+CPOL)        |                            |
       *===========================>*                            |
(2)    |                            |      SIM_UPDATE_REQ        |
       |                            *===========================>*
(3)    |                            |      SIM_UPDATE_CNF        |
       |                            *<===========================*
(4)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
(5)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+CPOL)        |                            |
       *===========================>*                            |
(6)    |        ACI_CMD_IND         |                            |
       |    (msg: +CPOL: PLMN2)     |                            |
       *<===========================*                            |
(7)    |        ACI_CMD_IND         |                            |
       |    (msg: +CPOL: PLMN3)     |                            |
       *<===========================*                            |
(8)    |        ACI_CMD_IND         |                            |
       |    (msg: +CPOL: PLMN4)     |                            |
       *<===========================*                            |
(9)    |        ACI_CMD_IND         |                            |
       |    (msg: +CPOL: PLMN5)     |                            |
       *<===========================*                            |
(10)   |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
       |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_DEL_1)
		cmd_seq	C_PLUS_CPOL_DEL_1
(2)	SIM_UPDATE_REQ	source	SRC_MMI
		offset	NUM_0
		datafield	SIM_PLMNSEL
		length	NUM_27
		trans_data	A_EF_PLMNSEL_DEL_CMP
(3)	SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
		cause	SIM_NO_ERROR
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN2_DLT
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN3_DLT
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN4_DLT
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN5_DLT
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.12 ACI191: Delete Entry in Preferred PLMN list, read list first compact mode

Description:

Preamble:

ACI001

```
    APL                         ACI                           PS
      |                           |                            |
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(2)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
(3)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(4)   |                           |        SIM_READ_REQ        |
      |                           *===========================>*
(5)   |                           |        SIM_READ_CNF        |
      |                           *<===========================*
(6)   |                           |       SIM_UPDATE_REQ       |
      |                           *===========================>*
(7)   |                           |       SIM_UPDATE_CNF       |
      |                           *<===========================*
(8)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(9)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(10)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN2)    |                            |
      *<==========================*                            |
(11)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN3)    |                            |
      *<==========================*                            |
(12)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN4)    |                            |
      *<==========================*                            |
(13)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN5)    |                            |
      *<==========================*                            |
(14)  |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)	
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_DEL_1)
	cmd_seq	C_PLUS_CPOL_DEL_1
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_DEL_CMP
(7) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN2_DLT
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN3_DLT
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN4_DLT
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_DLT)
	cmd_seq	M_PLUS_CPOL_PLMN5_DLT
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.13 ACI192: Insert Entry in Preferred PLMN list, list alread read compact mode

Description:

Preamble:

ACI189

```
    APL                          ACI                          PS
      |                           |                            |
      |                           |                            |
COMMAND (MMI CONFIG CPOL_MODE=1)
(1)   |        ACI_CMD_REQ        |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(2)   |                           |       SIM_UPDATE_REQ       |
      |                           *===========================>*
(3)   |                           |       SIM_UPDATE_CNF       |
      |                           *<===========================*
(4)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
 (5)  |        ACI_CMD_REQ        |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(6)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN1)    |                            |
      *<==========================*                            |
(7)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN2)    |                            |
      *<==========================*                            |
(7)   |        ACI_CMD_IND        |                            |
      |   (msg: +CPOL: PLMN INS)  |                            |
      *<==========================*                            |
(9)   |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN3)    |                            |
      *<==========================*                            |
(10)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN4)    |                            |
      *<==========================*                            |
(11)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN5)    |                            |
      *<==========================*                            |
(12)  |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_INS_3)
	cmd_seq	C_PLUS_CPOL_INS_3
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_INS_CMP
(3) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN1_CMP
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_INS_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN_INS_LNG
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_INS)
	cmd_seq	M_PLUS_CPOL_PLMN3_INS
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_INS)
	cmd_seq	M_PLUS_CPOL_PLMN4_INS
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_INS)
	cmd_seq	M_PLUS_CPOL_PLMN5_INS
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.14 ACI193: Insert Entry in Preferred PLMN list, read list first compact mode

Description:

Preamble:

ACI001

```
    APL                          ACI                           PS
      |                            |                            |
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CPOL)        |                            |
      *===========================>*                            |
(2)   |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=1)
(3)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CPOL)        |                            |
      *===========================>*                            |
(4)   |                            |       SIM_READ_REQ         |
      |                            *===========================>*
(5)   |                            |       SIM_READ_CNF         |
      |                            *<===========================*
(6)   |                            |      SIM_UPDATE_REQ        |
      |                            *===========================>*
(7)   |                            |      SIM_UPDATE_CNF        |
      |                            *<===========================*
(8)   |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
(9)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CPOL)        |                            |
      *===========================>*                            |
(10)  |        ACI_CMD_IND         |                            |
      |    (msg: +CPOL: PLMN1)     |                            |
      *<===========================*                            |
(11)  |        ACI_CMD_IND         |                            |
      |    (msg: +CPOL: PLMN2)     |                            |
      *<===========================*                            |
(12)  |        ACI_CMD_IND         |                            |
      |   (msg: +CPOL: PLMN INS)   |                            |
      *<===========================*                            |
(13)  |        ACI_CMD_IND         |                            |
      |    (msg: +CPOL: PLMN3)     |                            |
      *<===========================*                            |
(14)  |        ACI_CMD_IND         |                            |
      |    (msg: +CPOL: PLMN4)     |                            |
      *<===========================*                            |
(15)  |        ACI_CMD_IND         |                            |
      |    (msg: +CPOL: PLMN5)     |                            |
      *<===========================*                            |
(16)  |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_INS_3)
	cmd_seq	C_PLUS_CPOL_INS_3
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_INS_CMP
(7) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN1_CMP
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_INS_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN_INS_LNG
(13) ACI_CMD_IND		
	cmd_len	

	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_INS)	
	cmd_seq	M_PLUS_CPOL_PLMN3_INS
(14) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_INS)	
	cmd_seq	M_PLUS_CPOL_PLMN4_INS
(15) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_INS)	
	cmd_seq	M_PLUS_CPOL_PLMN5_INS
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.15 ACI194: Append Entry to Preferred PLMN list, list alread read compact mode

Description:

Preamble:

ACI189

```
     APL                           ACI                           PS
      |                             |                             |
      |                             |                             |
COMMAND (MMI CONFIG CPOL_MODE=0)
(1)   |        ACI_CMD_REQ          |                             |
      |       (cmd: AT+CPOL)        |                             |
      *============================>*                             |
(2)   |                             |       SIM_UPDATE_REQ        |
      |                             *============================>*
(3)   |                             |       SIM_UPDATE_CNF        |
      |                             *<============================*
(4)   |        ACI_CMD_IND          |                             |
      |         (msg: OK)           |                             |
      *<============================*                             |
(5)   |        ACI_CMD_REQ          |                             |
      |       (cmd: AT+CPOL)        |                             |
      *============================>*                             |
(6)   |        ACI_CMD_IND          |                             |
      |    (msg: +CPOL: PLMN1)      |                             |
      *<============================*                             |
(7)   |        ACI_CMD_IND          |                             |
      |    (msg: +CPOL: PLMN2)      |                             |
      *<============================*                             |
(8)   |        ACI_CMD_IND          |                             |
      |    (msg: +CPOL: PLMN3)      |                             |
      *<============================*                             |
(9)   |        ACI_CMD_IND          |                             |
      |    (msg: +CPOL: PLMN4)      |                             |
      *<============================*                             |
(10)  |        ACI_CMD_IND          |                             |
      |    (msg: +CPOL: PLMN5)      |                             |
      *<============================*                             |
(11)  |        ACI_CMD_IND          |                             |
      |   (msg: +CPOL: PLMN APP)    |                             |
      *<============================*                             |
(12)  |        ACI_CMD_IND          |                             |
      |         (msg: OK)           |                             |
      *<============================*                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CPOL_NEW_3)	
	cmd_seq	C_PLUS_CPOL_NEW_3
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_NEW_CMP

(3) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN1_CMP
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN3_CMP
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN4_CMP
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN5_CMP
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_NEW_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN_NEW_CMP
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.16 ACI195: Append Entry to Preferred PLMN list, read list first compact mode

Description:

Preamble:

ACI001

```
     APL                         ACI                          PS
      |                           |                            |
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(2)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
(3)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(4)   |                           |        SIM_READ_REQ        |
      |                           *===========================>*
(5)   |                           |        SIM_READ_CNF        |
      |                           *<===========================*
(6)   |                           |       SIM_UPDATE_REQ       |
      |                           *===========================>*
(7)   |                           |       SIM_UPDATE_CNF       |
      |                           *<===========================*
(8)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(9)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT+CPOL)       |                            |
      *==========================>*                            |
(10)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN1)    |                            |
      *<==========================*                            |
(11)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN2)    |                            |
      *<==========================*                            |
(12)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN3)    |                            |
      *<==========================*                            |
(13)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN4)    |                            |
      *<==========================*                            |
(14)  |        ACI_CMD_IND        |                            |
      |    (msg: +CPOL: PLMN5)    |                            |
      *<==========================*                            |
(15)  |        ACI_CMD_IND        |                            |
      |  (msg: +CPOL: PLMN APP)   |                            |
      *<==========================*                            |
(16)  |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_NEW_3)
	cmd_seq	C_PLUS_CPOL_NEW_3
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_NEW_CMP
(7) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN1_CMP
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN3_CMP
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN4_CMP

(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN5_CMP
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_NEW_CMP)
	cmd_seq	M_PLUS_CPOL_PLMN_NEW_CMP
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.17 ACI196: Change Entries of Preferred PLMN list, list alread read compact mode

Description:

Preamble:

ACI189

```
    APL                          ACI                          PS
     |                            |                            |
     |                            |                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
COMMAND (MMI CONFIG CPOL_IDX2=5)
 (1) |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(2)  |                            |       SIM_UPDATE_REQ       |
     |                            *===========================>*
(3)  |                            |       SIM_UPDATE_CNF       |
     |                            *<===========================*
(4)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(5)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(6)  |         ACI_CMD_IND        |                            |
     |   (msg: +CPOL: PLMN5 CHG)  |                            |
     *<===========================*                            |
(7)  |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN2)    |                            |
     *<===========================*                            |
(8)  |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN3)    |                            |
     *<===========================*                            |
(9)  |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN4)    |                            |
     *<===========================*                            |
(10) |         ACI_CMD_IND        |                            |
     |   (msg: +CPOL: PLMN1 CHG)  |                            |
     *<===========================*                            |
(11) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_CHG)
		cmd_seq	C_PLUS_CPOL_CHG
(2)	SIM_UPDATE_REQ	source	SRC_MMI
		offset	NUM_0
		datafield	SIM_PLMNSEL
		length	NUM_27
		trans_data	A_EF_PLMNSEL_CHG_CMP
(3)	SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
		cause	SIM_NO_ERROR

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
cmd_seq	C_PLUS_CPOL_Q

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_CHG)
cmd_seq	M_PLUS_CPOL_PLMN5_CHG

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)
cmd_seq	M_PLUS_CPOL_PLMN2_CMP

(8) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_CMP)
cmd_seq	M_PLUS_CPOL_PLMN3_CMP

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_CMP)
cmd_seq	M_PLUS_CPOL_PLMN4_CMP

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CHG)
cmd_seq	M_PLUS_CPOL_PLMN1_CHG

(11) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 08.10.99 AK Initial

4.14.18 ACI197: Change Entries of Preferred PLMN list, read list first compact mode

Description:

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(2)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
COMMAND (MMI CONFIG CPOL_IDX2=5)
 (3) |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(4)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(5)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(6)  |                            |       SIM_UPDATE_REQ       |
     |                            *===========================>*
(7)  |                            |       SIM_UPDATE_CNF       |
     |                            *<===========================*
(8)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(9)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CPOL)       |                            |
     *===========================>*                            |
(10) |         ACI_CMD_IND        |                            |
     |   (msg: +CPOL: PLMN5 CHG)  |                            |
     *<===========================*                            |
(11) |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN2)    |                            |
     *<===========================*                            |
(12) |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN3)    |                            |
     *<===========================*                            |
(13) |         ACI_CMD_IND        |                            |
     |     (msg: +CPOL: PLMN4)    |                            |
     *<===========================*                            |
(14) |         ACI_CMD_IND        |                            |
     |   (msg: +CPOL: PLMN1 CHG)  |                            |
     *<===========================*                            |
(15) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)	
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CPOL_CHG)	
	cmd_seq	C_PLUS_CPOL_CHG
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_CHG_CMP
(7) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(10) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_CHG)	
	cmd_seq	M_PLUS_CPOL_PLMN5_CHG
(11) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_CMP)	
	cmd_seq	M_PLUS_CPOL_PLMN2_CMP
(12) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_CMP)	
	cmd_seq	M_PLUS_CPOL_PLMN3_CMP
(13) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_CMP)	
	cmd_seq	M_PLUS_CPOL_PLMN4_CMP

(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_CHG)
	cmd_seq	M_PLUS_CPOL_PLMN1_CHG
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	08.10.99	AK	Initial

4.14.19 ACI198: Insert Entry at first position in Preferred PLMN list, read list first compact mode

Description:

Preamble:

ACI001

```
    APL                          ACI                           PS
      |                           |                            |
      |                           |                            |
(1)   |         ACI_CMD_REQ       |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(2)   |         ACI_CMD_IND       |                            |
      |          (msg: OK)        |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=1)
(3)   |         ACI_CMD_REQ       |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(4)   |                           |        SIM_READ_REQ        |
      |                           *===========================>*
(5)   |                           |        SIM_READ_CNF        |
      |                           *<===========================*
(6)   |                           |       SIM_UPDATE_REQ       |
      |                           *===========================>*
(7)   |                           |       SIM_UPDATE_CNF       |
      |                           *<===========================*
(8)   |         ACI_CMD_IND       |                            |
      |          (msg: OK)        |                            |
      *<==========================*                            |
COMMAND (MMI CONFIG CPOL_MODE=0)
(9)   |         ACI_CMD_REQ       |                            |
      |       (cmd: AT+CPOL)      |                            |
      *==========================>*                            |
(10)  |         ACI_CMD_IND       |                            |
      |   (msg: +CPOL: PLMN INS)  |                            |
      *<==========================*                            |
(11)  |         ACI_CMD_IND       |                            |
      |    (msg: +CPOL: PLMN1)    |                            |
      *<==========================*                            |
(12)  |         ACI_CMD_IND       |                            |
      |    (msg: +CPOL: PLMN2)    |                            |
      *<==========================*                            |
(13)  |         ACI_CMD_IND       |                            |
      |    (msg: +CPOL: PLMN3)    |                            |
      *<==========================*                            |
(14)  |         ACI_CMD_IND       |                            |
      |    (msg: +CPOL: PLMN4)    |                            |
      *<==========================*                            |
(15)  |         ACI_CMD_IND       |                            |
      |    (msg: +CPOL: PLMN5)    |                            |
      *<==========================*                            |
(16)  |         ACI_CMD_IND       |                            |
      |          (msg: OK)        |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_FRMT_LONG)
	cmd_seq	C_PLUS_CPOL_FRMT_LONG
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_INS_1)
	cmd_seq	C_PLUS_CPOL_INS_1
(4) SIM_READ_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NOT_PRESENT_8BIT
	max_length	NUM_DEC_90
(5) SIM_READ_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
	length	NUM_27
	trans_data	A_EF_PLMNSEL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_PLMNSEL
	length	NUM_27
	trans_data	A_EF_PLMNSEL_INS_1_CMP
(7) SIM_UPDATE_CNF	datafield	SIM_PLMNSEL
	cause	SIM_NO_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPOL_Q)
	cmd_seq	C_PLUS_CPOL_Q
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN_INS_1_LNG)
	cmd_seq	M_PLUS_CPOL_PLMN_INS_1_LNG
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN1_INS)
	cmd_seq	M_PLUS_CPOL_PLMN1_INS
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN2_INS)
	cmd_seq	M_PLUS_CPOL_PLMN2_INS
(13) ACI_CMD_IND		
	cmd_len	

		NUM_ELEMENTS(M_PLUS_CPOL_PLMN3_INS)
	cmd_seq	M_PLUS_CPOL_PLMN3_INS
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN4_INS)
	cmd_seq	M_PLUS_CPOL_PLMN4_INS
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CPOL_PLMN5_INS)
	cmd_seq	M_PLUS_CPOL_PLMN5_INS
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.15 Emergency (ACI200-ACI209)

4.15.1 ACI200: Emergency Call

Description:

Mobile originated emergency call establishment

Preamble:

ACI001

```
      APL                           ACI                           PS
       |                             |                             |
(1)    |         ACI_CMD_REQ         |                             |
       |      (cmd: AT+CLIR=2)       |                             |
       *===========================> *                             |
(2)    |         ACI_CMD_IND         |                             |
       |          (msg: OK)          |                             |
       *<=========================== *                             |
(3)    |         ACI_CMD_REQ         |                             |
       |      (cmd: AT+COLP=1)       |                             |
       *===========================> *                             |
(4)    |         ACI_CMD_IND         |                             |
       |          (msg: OK)          |                             |
       *<=========================== *                             |
(5)    |         ACI_CMD_REQ         |                             |
       |       (cmd: ATD112;)        |                             |
       *===========================> *                             |
(6)    |                             |       MNCC_SETUP_REQ        |
       |                             *===========================> *
(7)    |                             |        SIM_SYNC_REQ         |
       |                             *===========================> *
(8)    |                             |   MNCC_CALL_PROCEED_IND     |
       |                             *<=========================== *
(9)    |                             |      MNCC_PROGRESS_IND      |
       |                             *<=========================== *
(10)   |                             |       MNCC_ALERT_IND        |
       |                             *<=========================== *
(11)   |                             |        MNCC_SYNC_IND        |
       |                             *<=========================== *
(12)   |                             |       MNCC_SETUP_CNF        |
       |                             *<=========================== *
(13)   |         ACI_CMD_IND         |                             |
       |      (msg: +COLP:...)       |                             |
       *<=========================== *                             |
(14)   |         ACI_CMD_IND         |                             |
       |          (msg: OK)          |                             |
       *<=========================== *                             |
       |                             |                             |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
	cmd_seq	C_D_EMERG112
(6) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_EMERG_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_EMERG112
	called_party_sub	S_CLD_EMERG_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS

progress_desc	PROG_NOT_PRES
connected_number	S_CLG_EMERG112
connected_number_sub	S_CLG_EMERG_SUB

(13) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG112)	
cmd_seq	M_PLUS_COLP_EMERG112

(14) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	18.01.00	AK	Initial

4.15.2 ACI201: Emergency Call with FDN enabled

Description:

Mobile originated emergency call establishment while FDN is enabled.

Preamble:

ACI141

```
    APL                         ACI                          PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+CLIR=2)      |                           |
     *===========================>*                           |
(2)  |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(3)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+COLP=1)      |                           |
     *===========================>*                           |
(4)  |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
(5)  |        ACI_CMD_REQ         |                           |
     |       (cmd: ATD112;)       |                           |
     *===========================>*                           |
(6)  |                            |      MNCC_SETUP_REQ       |
     |                            *===========================>*
(7)  |                            |       SIM_SYNC_REQ        |
     |                            *===========================>*
(8)  |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<===========================*
(9)  |                            |     MNCC_PROGRESS_IND     |
     |                            *<===========================*
(10) |                            |      MNCC_ALERT_IND       |
     |                            *<===========================*
(11) |                            |       MNCC_SYNC_IND       |
     |                            *<===========================*
(12) |                            |      MNCC_SETUP_CNF       |
     |                            *<===========================*
(13) |        ACI_CMD_IND         |                           |
     |      (msg: +COLP:...)      |                           |
     *<===========================*                           |
(14) |        ACI_CMD_IND         |                           |
     |         (msg: OK)          |                           |
     *<===========================*                           |
     |                            |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
	cmd_seq	C_D_EMERG112
(6) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_EMERG_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_EMERG112
	called_party_sub	S_CLD_EMERG_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_EMERG112
	connected_number_sub	S_CLG_EMERG_SUB
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)
	cmd_seq	M_PLUS_COLP_EMERG112
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 18.01.00 AK Initial

4.15.3 ACI202: Emergency Call (Test all ME emergency call numbers, SIM ok)

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

Variants:

<A>....<H>

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |         ACI_CMD_REQ         |                             |
      |      (cmd: AT+CLIR=2)       |                             |
      *===========================> *                             |
(2)   |         ACI_CMD_IND         |                             |
      |         (msg: OK)           |                             |
      *<=========================== *                             |
(3)   |         ACI_CMD_REQ         |                             |
      |      (cmd: AT+COLP=1)       |                             |
      *===========================> *                             |
(4)   |         ACI_CMD_IND         |                             |
      |         (msg: OK)           |                             |
      *<=========================== *                             |
(5)   |         ACI_CMD_REQ         |                             |
      |       (cmd: ATDxxx;)        |                             |
      *===========================> *                             |
(6)   |                             |       MNCC_SETUP_REQ        |
      |                             *===========================> *
(7)   |                             |        SIM_SYNC_REQ         |
      |                             *===========================> *
(8)   |                             |    MNCC_CALL_PROCEED_IND    |
      |                             *<=========================== *
(9)   |                             |      MNCC_PROGRESS_IND      |
      |                             *<=========================== *
(10)  |                             |       MNCC_ALERT_IND        |
      |                             *<=========================== *
(11)  |                             |        MNCC_SYNC_IND        |
      |                             *<=========================== *
(12)  |                             |       MNCC_SETUP_CNF        |
      |                             *<=========================== *
(13)  |         ACI_CMD_IND         |                             |
      |      (msg: +COLP:...)       |                             |
      *<=========================== *                             |
(14)  |         ACI_CMD_IND         |                             |
      |         (msg: OK)           |                             |
      *<=========================== *                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value

(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	
		NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
	<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
	<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
	<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
	<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
	<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)
	<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)
	<G>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
	<H>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
	<A>	cmd_seq	C_D_EMERG112
	<B>	cmd_seq	C_D_EMERG000
	<C>	cmd_seq	C_D_EMERG08
	<D>	cmd_seq	C_D_EMERG110
	<E>	cmd_seq	C_D_EMERG118
	<F>	cmd_seq	C_D_EMERG119
	<G>	cmd_seq	C_D_EMERG911
	<H>	cmd_seq	C_D_EMERG999
(6)	MNCC_SETUP_REQ		
		ti	NUM_0
	<A>	prio	PRIO_EMERG_CALL
	<B>	prio	PRIO_EMERG_CALL
	<C>	prio	PRIO_EMERG_CALL
	<D>	prio	PRIO_EMERG_CALL
	<E>	prio	PRIO_NORM_CALL
	<F>	prio	PRIO_NORM_CALL
	<G>	prio	PRIO_EMERG_CALL
	<H>	prio	PRIO_EMERG_CALL
		ri	RI_NOT_PRES
		bcpara	S_BS_EMERG
		bcpara2	S_BS_NOT_PRESENT
	<A>	called_party	S_CLD_EMERG112
	<B>	called_party	S_CLD_EMERG000
	<C>	called_party	S_CLD_EMERG08
	<D>	called_party	S_CLD_EMERG110
	<E>	called_party	S_CLD_EMERG118
	<F>	called_party	S_CLD_EMERG119

<G>	called_party	S_CLD_EMERG911
<H>	called_party	S_CLD_EMERG999
	called_party_sub	S_CLD_EMERG_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG08
<D>	connected_number	S_CLG_EMERG110
<E>	connected_number	S_CLG_EMERG118
<F>	connected_number	S_CLG_EMERG119
<G>	connected_number	S_CLG_EMERG911
<H>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB
(13) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG08)
<D>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG110)
<E>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG118)
<F>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG119)
<G>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG911)
<H>	cmd_len	

	NUM_ELEMENTS(M_PLUS_COLP_EMERG999)	
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_EMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG08
<D>	cmd_seq	M_PLUS_COLP_EMERG110
<E>	cmd_seq	M_PLUS_COLP_EMERG118
<F>	cmd_seq	M_PLUS_COLP_EMERG119
<G>	cmd_seq	M_PLUS_COLP_EMERG911
<H>	cmd_seq	M_PLUS_COLP_EMERG999

(14) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 12.12.01 KGT Initial

4.15.4 ACI203: Emergency Call (Test all ME emergency call numbers, no SIM)

Description:

Mobile originated emergency call establishment

Preamble:

ACI021

Variants:

<A>....<H>

```
    APL                         ACI                         PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+CLIR=2)      |                           |
      *==========================>*                           |
(2)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(3)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT+COLP=1)      |                           |
      *==========================>*                           |
(4)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
(5)   |       ACI_CMD_REQ         |                           |
      |      (cmd: ATDxxx;)       |                           |
      *==========================>*                           |
(6)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(7)   |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(8)   |                           |  MNCC_CALL_PROCEED_IND    |
      |                           *<==========================*
(9)   |                           |    MNCC_PROGRESS_IND      |
      |                           *<==========================*
(10)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(11)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(12)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(13)  |       ACI_CMD_IND         |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                           |
(14)  |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)
<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)
<G>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
<H>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
<A>	cmd_seq	C_D_EMERG112
<B>	cmd_seq	C_D_EMERG000
<C>	cmd_seq	C_D_EMERG08
<D>	cmd_seq	C_D_EMERG110
<E>	cmd_seq	C_D_EMERG118
<F>	cmd_seq	C_D_EMERG119
<G>	cmd_seq	C_D_EMERG911
<H>	cmd_seq	C_D_EMERG999
(6) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_EMERG_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
<A>	called_party	S_CLD_EMERG112
<B>	called_party	S_CLD_EMERG000
<C>	called_party	S_CLD_EMERG08
<D>	called_party	S_CLD_EMERG110
<E>	called_party	S_CLD_EMERG118
<F>	called_party	S_CLD_EMERG119
<G>	called_party	S_CLD_EMERG911
<H>	called_party	S_CLD_EMERG999
	called_party_sub	S_CLD_EMERG_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH

(12) MNCC_SETUP_CNF

	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG08
<D>	connected_number	S_CLG_EMERG110
<E>	connected_number	S_CLG_EMERG118
<F>	connected_number	S_CLG_EMERG119
<G>	connected_number	S_CLG_EMERG911
<H>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB

(13) ACI_CMD_IND

<A>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG08)
<D>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG110)
<E>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG118)
<F>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG119)
<G>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG911)
<H>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG999)
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_EMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG08
<D>	cmd_seq	M_PLUS_COLP_EMERG110
<E>	cmd_seq	M_PLUS_COLP_EMERG118
<F>	cmd_seq	M_PLUS_COLP_EMERG119
<G>	cmd_seq	M_PLUS_COLP_EMERG911
<H>	cmd_seq	M_PLUS_COLP_EMERG999

(14) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 12.12.01 KGT Initial

4.15.5 ACI204: Emergency Call (Test ME emergency call numbers (except 118, 119), SIM blocked)

Description:

Mobile originated emergency call establishment. (When SIM used (even if blocked) then 118 and 119 are normal calls. But normal calls will not establish, because of blocked SIM. 118 and 119 are testet in ACI214)

Preamble:

ACI022

Variants:

<A>....<F>

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+CLIR=2)      |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(3)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+COLP=1)      |                           |
      *==========================>*                           |
(4)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(5)   |        ACI_CMD_REQ        |                           |
      |      (cmd: ATDxxx;)       |                           |
      *==========================>*                           |
(6)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(7)   |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(8)   |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(9)   |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(10)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(11)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(12)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(13)  |        ACI_CMD_IND        |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                           |
(14)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value

(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	
		NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
	<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
	<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
	<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
	<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
	<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
	<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
	<A>	cmd_seq	C_D_EMERG112
	<B>	cmd_seq	C_D_EMERG000
	<C>	cmd_seq	C_D_EMERG08
	<D>	cmd_seq	C_D_EMERG110
	<E>	cmd_seq	C_D_EMERG911
	<F>	cmd_seq	C_D_EMERG999
(6)	MNCC_SETUP_REQ		
		ti	NUM_0
		prio	PRIO_EMERG_CALL
		ri	RI_NOT_PRES
		bcpara	S_BS_EMERG
		bcpara2	S_BS_NOT_PRESENT
	<A>	called_party	S_CLD_EMERG112
	<B>	called_party	S_CLD_EMERG000
	<C>	called_party	S_CLD_EMERG08
	<D>	called_party	S_CLD_EMERG110
	<E>	called_party	S_CLD_EMERG911
	<F>	called_party	S_CLD_EMERG999
		called_party_sub	S_CLD_EMERG_SUB
		clir_sup	CLR_SUP
		fac_inf	NOT_USED
(7)	SIM_SYNC_REQ		
		synccs	SYNC_START_CALL
(8)	MNCC_CALL_PROCEED_IND		
		ti	NUM_0
		progress_desc	PROG_NOT_PRES
		ri	RI_NOT_PRES

	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG08
<D>	connected_number	S_CLG_EMERG110
<E>	connected_number	S_CLG_EMERG911
<F>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB
(13) ACI_CMD_IND		
<A>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG112)	
<B>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG000)	
<C>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG08)	
<D>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG110)	
<E>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG911)	
<F>	cmd_len NUM_ELEMENTS(M_PLUS_COLP_EMERG999)	
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_EMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG08
<D>	cmd_seq	M_PLUS_COLP_EMERG110
<E>	cmd_seq	M_PLUS_COLP_EMERG911
<F>	cmd_seq	M_PLUS_COLP_EMERG999
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 12.12.01 KGT Initial

4.15.6 ACI205: Emergency Call (Test all ME emergency call numbers (except 118,119), PIN required)

Description:

Mobile originated emergency call establishment. (When SIM used (even if PIN not entered yet) then 118 and 119 are normal calls. But normal calls will not establish, because of not entered PIN. 118 and 119 are testet in ACI215)

Preamble:

ACI028

Variants:

<A>....<F>

```
    APL                          ACI                         PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+CLIR=2)      |                           |
     *===========================>*                           |
(2)  |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
(3)  |        ACI_CMD_REQ         |                           |
     |      (cmd: AT+COLP=1)      |                           |
     *===========================>*                           |
(4)  |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
(5)  |        ACI_CMD_REQ         |                           |
     |       (cmd: ATDxxx;)       |                           |
     *===========================>*                           |
(6)  |                            |      MNCC_SETUP_REQ       |
     |                            *==========================>*
(7)  |                            |       SIM_SYNC_REQ        |
     |                            *==========================>*
(8)  |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<==========================*
(9)  |                            |     MNCC_PROGRESS_IND     |
     |                            *<==========================*
(10) |                            |      MNCC_ALERT_IND       |
     |                            *<==========================*
(11) |                            |       MNCC_SYNC_IND       |
     |                            *<==========================*
(12) |                            |      MNCC_SETUP_CNF       |
     |                            *<==========================*
(13) |        ACI_CMD_IND         |                           |
     |      (msg: +COLP:...)      |                           |
     *<===========================*                           |
(14) |        ACI_CMD_IND         |                           |
     |          (msg: OK)         |                           |
     *<===========================*                           |
     |                            |                           |
```

Parametrization:

Primitive	Parameter	Value

(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	
		NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(5)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
	<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
	<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
	<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
	<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
	<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
	<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
	<A>	cmd_seq	C_D_EMERG112
	<B>	cmd_seq	C_D_EMERG000
	<C>	cmd_seq	C_D_EMERG08
	<D>	cmd_seq	C_D_EMERG110
	<E>	cmd_seq	C_D_EMERG911
	<F>	cmd_seq	C_D_EMERG999
(6)	MNCC_SETUP_REQ		
		ti	NUM_0
	<A>	prio	PRIO_EMERG_CALL
	<B>	prio	PRIO_EMERG_CALL
	<C>	prio	PRIO_EMERG_CALL
	<D>	prio	PRIO_EMERG_CALL
	<E>	prio	PRIO_EMERG_CALL
	<F>	prio	PRIO_EMERG_CALL
		ri	RI_NOT_PRES
		bcpara	S_BS_EMERG
		bcpara2	S_BS_NOT_PRESENT
	<A>	called_party	S_CLD_EMERG112
	<B>	called_party	S_CLD_EMERG000
	<C>	called_party	S_CLD_EMERG08
	<D>	called_party	S_CLD_EMERG110
	<E>	called_party	S_CLD_EMERG911
	<F>	called_party	S_CLD_EMERG999
		called_party_sub	S_CLD_EMERG_SUB
		clir_sup	CLR_SUP
		fac_inf	NOT_USED
(7)	SIM_SYNC_REQ		
		synccs	SYNC_START_CALL

(8) MNCC_CALL_PROCEED_IND

	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT

(9) MNCC_PROGRESS_IND

	ti	NUM_0
	progress_desc	PROG_NOT_PRES

(10) MNCC_ALERT_IND

	ti	NUM_0
	progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH

(12) MNCC_SETUP_CNF

	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG08
<D>	connected_number	S_CLG_EMERG110
<E>	connected_number	S_CLG_EMERG911
<F>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB

(13) ACI_CMD_IND

<A>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG08)
<D>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG110)
<E>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG911)
<F>	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_EMERG999)
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_EMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG08
<D>	cmd_seq	M_PLUS_COLP_EMERG110
<E>	cmd_seq	M_PLUS_COLP_EMERG911
<F>	cmd_seq	M_PLUS_COLP_EMERG999

(14) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 12.12.01 KGT Initial

4.15.7 ACI206: Emergency Call (Test all ME emergency call numbers (except 08), SIM has ECC numbers)

Description:

Mobile originated emergency call establishment (08 will be treated as normal call. But 08 is USSD. 08 will be testet in ACI216):

On SIM ECC numbers are: 112 / 999 / 123456 (??)

Preamble:

ACI024A

Variants:

<A>....<G>

```
       APL                           ACI                           PS
        |                             |                             |
(1)     |        ACI_CMD_REQ          |                             |
        |      (cmd: AT+CLIR=2)       |                             |
        *===========================> *                             |
(2)     |        ACI_CMD_IND          |                             |
        |         (msg: OK)           |                             |
        *<=========================== *                             |
(3)     |        ACI_CMD_REQ          |                             |
        |      (cmd: AT+COLP=1)       |                             |
        *===========================> *                             |
(4)     |        ACI_CMD_IND          |                             |
        |         (msg: OK)           |                             |
        *<=========================== *                             |
(5)     |        ACI_CMD_REQ          |                             |
        |       (cmd: ATDxxx;)        |                             |
        *===========================> *                             |
(6)     |                             |       MNCC_SETUP_REQ        |
        |                             *===========================> *
(7)     |                             |        SIM_SYNC_REQ         |
        |                             *===========================> *
(8)     |                             |    MNCC_CALL_PROCEED_IND    |
        |                             *<=========================== *
(9)     |                             |      MNCC_PROGRESS_IND      |
        |                             *<=========================== *
(10)    |                             |       MNCC_ALERT_IND        |
        |                             *<=========================== *
(11)    |                             |        MNCC_SYNC_IND        |
        |                             *<=========================== *
(12)    |                             |       MNCC_SETUP_CNF        |
        |                             *<=========================== *
(13)    |        ACI_CMD_IND          |                             |
        |      (msg: +COLP:...)       |                             |
        *<=========================== *                             |
(14)    |        ACI_CMD_IND          |                             |
        |         (msg: OK)           |                             |
        *<=========================== *                             |
        |                             |                             |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP

(2) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(5) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)
<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)
<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
<G>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
<A>	cmd_seq	C_D_EMERG112
<B>	cmd_seq	C_D_EMERG000
<C>	cmd_seq	C_D_EMERG110
<D>	cmd_seq	C_D_EMERG118
<E>	cmd_seq	C_D_EMERG119
<F>	cmd_seq	C_D_EMERG911
<G>	cmd_seq	C_D_EMERG999

(6) MNCC_SETUP_REQ

	ti	NUM_0
<A>	prio	PRIO_EMERG_CALL
<B>	prio	PRIO_NORM_CALL
<C>	prio	PRIO_NORM_CALL
<D>	prio	PRIO_NORM_CALL
<E>	prio	PRIO_NORM_CALL
<F>	prio	PRIO_NORM_CALL
<G>	prio	PRIO_EMERG_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
<A>	called_party	S_CLD_EMERG112
<B>	called_party	S_CLD_EMERG000
<C>	called_party	S_CLD_EMERG110
<D>	called_party	S_CLD_EMERG118
<E>	called_party	S_CLD_EMERG119
<F>	called_party	S_CLD_EMERG911
<G>	called_party	S_CLD_EMERG999
	called_party_sub	S_CLD_EMERG_SUB

	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG110
<D>	connected_number	S_CLG_EMERG118
<E>	connected_number	S_CLG_EMERG119
<F>	connected_number	S_CLG_EMERG911
<G>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB
(13) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)	
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_EMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG110
<D>	cmd_seq	M_PLUS_COLP_EMERG118
<E>	cmd_seq	M_PLUS_COLP_EMERG119
<F>	cmd_seq	M_PLUS_COLP_EMERG911
<G>	cmd_seq	M_PLUS_COLP_EMERG999
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.15.8 ACI207: Emergency Call (Test all ME emergency call numbers, check with service numbers)

Description:

Mobile originated emergency call establishment

Preamble:

ACI029A

Variants:

<A>....<H>

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+CLIR=2)      |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(3)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+COLP=1)      |                           |
      *==========================>*                           |
(4)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(5)   |        ACI_CMD_REQ        |                           |
      |      (cmd: ATDxxx;)       |                           |
      *==========================>*                           |
(6)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(7)   |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(8)   |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(9)   |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(10)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(11)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(12)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(13)  |        ACI_CMD_IND        |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                           |
(14)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP

(2) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(5) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG112)
<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG000)
<C>	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
<D>	cmd_len	NUM_ELEMENTS(C_D_EMERG110)
<E>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)
<F>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)
<G>	cmd_len	NUM_ELEMENTS(C_D_EMERG911)
<H>	cmd_len	NUM_ELEMENTS(C_D_EMERG999)
<A>	cmd_seq	C_D_EMERG112
<B>	cmd_seq	C_D_EMERG000
<C>	cmd_seq	C_D_EMERG08
<D>	cmd_seq	C_D_EMERG110
<E>	cmd_seq	C_D_EMERG118
<F>	cmd_seq	C_D_EMERG119
<G>	cmd_seq	C_D_EMERG911
<H>	cmd_seq	C_D_EMERG999

(6) MNCC_SETUP_REQ

	ti	NUM_0
<A>	prio	PRIO_EMERG_CALL
<B>	prio	PRIO_NORM_CALL
<C>	prio	PRIO_EMERG_CALL
<D>	prio	PRIO_EMERG_CALL
<E>	prio	PRIO_NORM_CALL
<F>	prio	PRIO_NORM_CALL
<G>	prio	PRIO_NORM_CALL
<H>	prio	PRIO_EMERG_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
<A>	called_party	S_CLD_EMERG112
<B>	called_party	S_CLD_EMERG000
<C>	called_party	S_CLD_EMERG08
<D>	called_party	S_CLD_EMERG110
<E>	called_party	S_CLD_EMERG118
<F>	called_party	S_CLD_EMERG119

<G>	called_party	S_CLD_EMERG911
<H>	called_party	S_CLD_EMERG999
	called_party_sub	S_CLD_EMERG_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(7) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(8) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_EMERG
	bcpara2	S_BS_NOT_PRESENT
(9) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(10) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(11) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(12) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
<A>	connected_number	S_CLG_EMERG112
<B>	connected_number	S_CLG_EMERG000
<C>	connected_number	S_CLG_EMERG08
<D>	connected_number	S_CLG_EMERG110
<E>	connected_number	S_CLG_EMERG118
<F>	connected_number	S_CLG_EMERG119
<G>	connected_number	S_CLG_EMERG911
<H>	connected_number	S_CLG_EMERG999
	connected_number_sub	S_CLG_EMERG_SUB
(13) ACI_CMD_IND		
<A>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_EMERG112)	
<B>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_NOEMERG000)	
<C>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_EMERG08)	
<D>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_EMERG110)	
<E>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_EMERG118)	
<F>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_NOEMERG119)	
<G>	cmd_len	
	NUM_ELEMENTS(M_PLUS_COLP_NOEMERG911)	
<H>	cmd_len	

	NUM_ELEMENTS(M_PLUS_COLP_EMERG999)	
<A>	cmd_seq	M_PLUS_COLP_EMERG112
<B>	cmd_seq	M_PLUS_COLP_NOEMERG000
<C>	cmd_seq	M_PLUS_COLP_EMERG08
<D>	cmd_seq	M_PLUS_COLP_EMERG110
<E>	cmd_seq	M_PLUS_COLP_EMERG118
<F>	cmd_seq	M_PLUS_COLP_NOEMERG119
<G>	cmd_seq	M_PLUS_COLP_NOEMERG911
<H>	cmd_seq	M_PLUS_COLP_EMERG999

(14) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.12.01 KGT Initial

4.15.9 ACI208: No Emergency Call (Test number which begins as an emergency number, but continous)

Description:

Mobile originated normal call establishment

Preamble:

ACI001

```
      APL                          ACI                          PS
       |                            |                            |
(1)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+CLIR=2)      |                            |
       *===========================>*                            |
(2)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
(3)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT+COLP=1)      |                            |
       *===========================>*                            |
(4)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
(5)    |        ACI_CMD_REQ         |                            |
       |       (cmd: ATDxxx;)       |                            |
       *===========================>*                            |
(6)    |                            |       MNCC_SETUP_REQ       |
       |                            *===========================>*
(7)    |                            |        SIM_SYNC_REQ        |
       |                            *===========================>*
(8)    |                            |   MNCC_CALL_PROCEED_IND    |
       |                            *<===========================*
(9)    |                            |     MNCC_PROGRESS_IND      |
       |                            *<===========================*
(10)   |                            |       MNCC_ALERT_IND       |
       |                            *<===========================*
(11)   |                            |       MNCC_SYNC_IND        |
       |                            *<===========================*
(12)   |                            |       MNCC_SETUP_CNF       |
       |                            *<===========================*
(13)   |        ACI_CMD_IND         |                            |
       |      (msg: +COLP:...)      |                            |
       *<===========================*                            |
(14)   |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<===========================*                            |
       |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_D_NOEMERG999099)
cmd_seq	C_D_NOEMERG999099

(6) MNCC_SETUP_REQ

ti	NUM_0
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_EMERG
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_NOEMERG999099
called_party_sub	S_CLD_EMERG_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(7) SIM_SYNC_REQ

synccs	SYNC_START_CALL

(8) MNCC_CALL_PROCEED_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_EMERG
bcpara2	S_BS_NOT_PRESENT

(9) MNCC_PROGRESS_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(10) MNCC_ALERT_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(12) MNCC_SETUP_CNF

ti	NUM_0
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_NOEMERG999099
connected_number_sub	S_CLG_EMERG_SUB

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NOEMERG999099)
cmd_seq	M_PLUS_COLP_NOEMERG999099

(14) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 14.12.01 KGT Initial

4.15.10 ACI214: No Emergency Call (Test 118,119 with SIM blocked)

Description:

When SIM used (even if blocked) then 118 and 119 are normal calls. No call establishment, because of blocked SIM.

Preamble:

ACI022

Variants:

<A>....<B>

```
       APL                          ACI                          PS
        |                            |                            |
(1)     |        ACI_CMD_REQ         |                            |
        |      (cmd: AT+CLIR=2)      |                            |
        *===========================>*                            |
(2)     |        ACI_CMD_IND         |                            |
        |         (msg: OK)          |                            |
        *<===========================*                            |
(3)     |        ACI_CMD_REQ         |                            |
        |      (cmd: AT+COLP=1)      |                            |
        *===========================>*                            |
(4)     |        ACI_CMD_IND         |                            |
        |         (msg: OK)          |                            |
        *<===========================*                            |
(5)     |        ACI_CMD_REQ         |                            |
        |       (cmd: ATDxxx;)       |                            |
        *===========================>*                            |
(6)     |        ACI_CMD_IND         |                            |
        |       (msg: ERROR)         |                            |
        *<===========================*                            |
        |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
		cmd_seq	C_PLUS_CLIR_SUP
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
		cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND			
	cmd_len	NUM_ELEMENTS(M_OK)	
	cmd_seq	M_OK	
(5) ACI_CMD_REQ			
	cmd_src	CMD_SRC_EXT	
<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)	
<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)	
<A>	cmd_seq	C_D_EMERG118	
<B>	cmd_seq	C_D_EMERG119	
(3) ACI_CMD_IND			
	cmd_len	NUM_ELEMENTS(M_ERR_SIM_BLCK)	
	cmd_seq	M_ERR_SIM_BLCK	
(6) History:	08.03.02	KGT	Initial

4.15.11 ACI215: No Emergency Call (Test 118,119 with PIN required)

Description:

When SIM used (even if PIN not entered yet) then 118 and 119 are normal calls. No call establishment, because of not entered PIN.

Preamble:

ACI028

Variants:

<A>....<B>

```
     APL                          ACI                           PS
      |                            |                             |
(1)   |        ACI_CMD_REQ         |                             |
      |      (cmd: AT+CLIR=2)      |                             |
      *==========================> *                             |
(2)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<========================== *                             |
(3)   |        ACI_CMD_REQ         |                             |
      |      (cmd: AT+COLP=1)      |                             |
      *==========================> *                             |
(4)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<========================== *                             |
(5)   |        ACI_CMD_REQ         |                             |
      |       (cmd: ATDxxx;)       |                             |
      *==========================> *                             |
(6)   |        ACI_CMD_IND         |                             |
      |       (msg: ERROR)         |                             |
      *<========================== *                             |
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP

(2) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(5) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_D_EMERG118)
<B>	cmd_len	NUM_ELEMENTS(C_D_EMERG119)
<A>	cmd_seq	C_D_EMERG118
<B>	cmd_seq	C_D_EMERG119

(3) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_ERR_PIN_REQ)
	cmd_seq	M_ERR_PIN_REQ

(6)

History: 08.03.02 KGT Initial

4.15.12 ACI216: No Emergency Call (Test 08 (USSD), SIM has emergency call numbers)

Description: SIM has emergency call numbers stored. 08 will be treated as normal call. But 08 is USSD .

Preamble:

ACI024A

```
       APL                            ACI                            PS
        |                              |                              |
(1)     |          ACI_CMD_REQ         |                              |
        |       (cmd: AT+CLIR=2)       |                              |
        *=============================>*                              |
(2)     |          ACI_CMD_IND         |                              |
        |           (msg: OK)          |                              |
        *<=============================*                              |
(3)     |          ACI_CMD_REQ         |                              |
        |       (cmd: AT+COLP=1)       |                              |
        *=============================>*                              |
(4)     |          ACI_CMD_IND         |                              |
        |           (msg: OK)          |                              |
        *<=============================*                              |
(5)     |          ACI_CMD_REQ         |                              |
        |        (cmd: ATDxxx;)        |                              |
        *=============================>*                              |
(6)     |                              |        MNSS_BEGIN_REQ        |
        |                              *=============================>*
(7)     |                              |      MNSS_FACILITY_IND       |
        |                              *<=============================*
        |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_EMERG08)
	cmd_seq	C_D_EMERG08
(6) MNSS_BEGIN_REQ		
	ti	NUM_0
	fac_inf	NOT_USED
	ss_ver	NOT_USED
(7) MNSS_FACILITY_IND		
	ti	NUM_0
	fac_inf	NOT_USED

4.16 Call Modification (ACI060 – ACI069)

4.16.1 ACI220: Release all held calls

Description:

Release all held calls. One is held one is active

Preamble:

ACI051A

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |         ACI_CMD_REQ          |                              |
      |       (cmd: AT+CHLD=0)       |                              |
      *==========================>*                              |
(2)   |                              |     MNCC_DISCONNECT_REQ      |
      |                              *==========================>*
(3)   |                              |       MNCC_RELEASE_IND       |
      |                              *<==========================*
(4)   |         ACI_CMD_IND          |                              |
      |          (msg: OK)           |                              |
      *<==========================*                              |
      |                              |                              |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
		cmd_seq	C_PLUS_CHLD_0
(2)	MNCC_DISCONNECT_REQ		
		ti	NUM_0
		cause	MNCC_CAUSE_CALL_CLEAR
		fac_inf	NOT_USED
		ss_version	NOT_USED
(3)	MNCC_RELEASE_IND		
		ti	NUM_0
		cause	MNCC_CAUSE_CALL_CLEAR
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.2 ACI221: UDUB for a waiting call

Description:

Disconnect an incoming call with cause user determined user busy.

Preamble:

ACI050A

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |     (cmd: AT+CCWA=1)      |                           |
     *==========================>*                           |
(2)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
(3)  |                           |      MNCC_SETUP_IND       |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |     (msg: +CCWA: ...)     |                           |
     *<==========================*                           |
(5)  |                           |      MNCC_ALERT_REQ       |
     |                           *==========================>*
(6)  |        ACI_CMD_REQ        |                           |
     |     (cmd: AT+CHLD=0)      |                           |
     *==========================>*                           |
(7)  |                           |    MNCC_DISCONNECT_REQ    |
     |                           *==========================>*
(8)  |                           |     MNCC_RELEASE_IND      |
     |                           *<==========================*
(9)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	
		NUM_ELEMENTS(C_PLUS_CCWA_ON)	
		cmd_seq	C_PLUS_CCWA_ON
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK
(3)	MNCC_SETUP_IND		
		ti	NUM_8
		ri	RI_NOT_PRES
		bcpara	S_BS_VOICE
		bcpara2	S_BS_NOT_PRESENT
		progress_desc	PROG_NOT_PRES
		sig	SIG_RING_BACK_TONE_ON

	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CCWA)
	cmd_seq	M_PLUS_CCWA
(5) MNCC_ALERT_REQ		
	ti	NUM_8
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
	cmd_seq	C_PLUS_CHLD_0
(7) MNCC_DISCONNECT_REQ		
	ti	NUM_8
	cause	MNCC_CAUSE_USER_BUSY
	fac_inf	NOT_USED
	ss_version	NOT_USED
(8) MNCC_RELEASE_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_CALL_CLEAR
(9) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.3 ACI222: Release all active calls and accept held call

Description:

All active calls will be received. The first held call will be retrieved

Preamble:

ACI051A

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |        ACI_CMD_REQ        |                            |
     |     (cmd: AT+CHLD=1)      |                            |
     *==========================>*                            |
(2)  |                           |    MNCC_DISCONNECT_REQ     |
     |                           *===========================>*
(3)  |                           |      MNCC_RELEASE_IND      |
     |                           *<===========================*
(4)  |                           |     MNCC_RETRIEVE_REQ      |
     |                           *===========================>*
(5)  |                           |     MNCC_RETRIEVE_CNF      |
     |                           *<===========================*
(6)  |        ACI_CMD_IND        |                            |
     |         (msg: OK)         |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_1)
		cmd_seq	C_PLUS_CHLD_1
(2)	MNCC_DISCONNECT_REQ		
		ti	NUM_1
		cause	MNCC_CAUSE_CALL_CLEAR
		fac_inf	NOT_USED
		ss_version	NOT_USED
(3)	MNCC_RELEASE_IND		
		ti	NUM_1
		cause	MNCC_CAUSE_CALL_CLEAR
(4)	MNCC_RETRIEVE_REQ		
		ti	NUM_0
(5)	MNCC_RETRIEVE_CNF		
		ti	NUM_0
		cause	MNCC_CAUSE_RETRIEVE_SUCCESS
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.4 ACI223: Release all active calls and accept the waiting call

Description:

Release the current active call. Accept the incoming call.

Preamble:

ACI051A

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CCWA=1)      |                            |
      *===========================>*                            |
(2)   |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
(3)   |                            |       MNCC_SETUP_IND       |
      |                            *<===========================*
(4)   |        ACI_CMD_IND         |                            |
      |      (msg: +CCWA: ...)     |                            |
      *<===========================*                            |
(5)   |                            |       MNCC_ALERT_REQ       |
      |                            *===========================>*
(6)   |        ACI_CMD_REQ         |                            |
      |      (cmd: AT+CHLD=1)      |                            |
      *===========================>*                            |
(7)   |                            |    MNCC_DISCONNECT_REQ     |
      |                            *===========================>*
(8)   |                            |      MNCC_RELEASE_IND      |
      |                            *<===========================*
(9)   |                            |       MNCC_SETUP_RES       |
      |                            *===========================>*
(10)  |                            |       MNCC_SYNC_IND        |
      |                            *<===========================*
(11)  |                            |   MNCC_SETUP_COMPL_IND     |
      |                            *<===========================*
(12)  |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CCWA_ON)	
	cmd_seq	C_PLUS_CCWA_ON
(2) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED

(3) MNCC_SETUP_IND

ti	NUM_8
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
progress_desc	PROG_NOT_PRES
sig	SIG_RING_BACK_TONE_ON
calling_party	S_CLG_PARTY
calling_party_sub	S_CLG_PARTY_SUB
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
redirecting_party	NOT_USED
redirecting_party_sub	NOT_USED

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CCWA)
cmd_seq	M_PLUS_CCWA

(5) MNCC_ALERT_REQ

ti	NUM_8

(6) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_1)
cmd_seq	C_PLUS_CHLD_1

(7) MNCC_DISCONNECT_REQ

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR
fac_inf	NOT_USED
ss_version	NOT_USED

(8) MNCC_RELEASE_IND

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR

(9) MNCC_SETUP_RES

ti	NUM_8

(10) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(11) MNCC_SETUP_COMPL_IND

ti	NUM_8
cause	MNCC_CAUSE_SUCCESS

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

4.16.5 ACI224: Place all active calls on hold and accept a held call

Description:

All active calls will be placed on hold. The first held call will be retrieved

Preamble:

ACI051A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT+CHLD=2)       |                             |
     *===========================> *                             |
(2)  |                             |        MNCC_HOLD_REQ        |
     |                             *===========================> *
(3)  |                             |      MNCC_RETRIEVE_REQ      |
     |                             *===========================> *
(4)  |                             |        MNCC_HOLD_CNF        |
     |                             *<=========================== *
(5)  |                             |      MNCC_RETRIEVE_CNF      |
     |                             *<=========================== *
(6)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
		cmd_seq	C_PLUS_CHLD_2
(2)	MNCC_HOLD_REQ		
		ti	NUM_1
(3)	MNCC_RETRIEVE_REQ		
		ti	NUM_0
(4)	MNCC_HOLD_CNF		
		ti	NUM_1
		cause	MNCC_CAUSE_HOLD_SUCCESS
(5)	MNCC_RETRIEVE_CNF		
		ti	NUM_0
		cause	MNCC_CAUSE_RETRIEVE_SUCCESS
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 23.12.98 AK Initial

4.16.6 ACI225: Place all active calls on hold and accept the waiting call

Description:

Place the current active call on hold. Accept the incoming call.

Preamble:

ACI050A

```
      APL                         ACI                         PS
       |                           |                           |
(1)    |        ACI_CMD_REQ        |                           |
       |     (cmd: AT+CCWA=1)      |                           |
       *==========================>*                           |
(2)    |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
(3)    |                           |      MNCC_SETUP_IND       |
       |                           *<==========================*
(4)    |        ACI_CMD_IND        |                           |
       |     (msg: +CCWA: ...)     |                           |
       *<==========================*                           |
(5)    |                           |      MNCC_ALERT_REQ       |
       |                           *==========================>*
(6)    |        ACI_CMD_REQ        |                           |
       |     (cmd: AT+CHLD=2)      |                           |
       *==========================>*                           |
(7)    |                           |       MNCC_HOLD_REQ       |
       |                           *==========================>*
(8)    |                           |       MNCC_HOLD_CNF       |
       |                           *<==========================*
(9)    |                           |      MNCC_SETUP_RES       |
       |                           *==========================>*
(10)   |                           |       MNCC_SYNC_IND       |
       |                           *<==========================*
(11)   |                           |   MNCC_SETUP_COMPL_IND    |
       |                           *<==========================*
(12)   |        ACI_CMD_IND        |                           |
       |         (msg: OK)         |                           |
       *<==========================*                           |
       |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CCWA_ON)
	cmd_seq	C_PLUS_CCWA_ON
(2) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED

(3) MNCC_SETUP_IND		
	ti	NUM_8
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	progress_desc	PROG_NOT_PRES
	sig	SIG_RING_BACK_TONE_ON
	calling_party	S_CLG_PARTY
	calling_party_sub	S_CLG_PARTY_SUB
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	redirecting_party	NOT_USED
	redirecting_party_sub	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CCWA)
	cmd_seq	M_PLUS_CCWA
(5) MNCC_ALERT_REQ		
	ti	NUM_8
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
	cmd_seq	C_PLUS_CHLD_2
(7) MNCC_HOLD_REQ		
	ti	NUM_0
(8) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_HOLD_SUCCESS
(9) MNCC_SETUP_RES		
	ti	NUM_8
(10) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(11) MNCC_SETUP_COMPL_IND		
	ti	NUM_8
	cause	MNCC_CAUSE_SUCCESS
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.7 ACI226: Release a specific activ call

Description:

Release the specific active call.

Preamble:

ACI051A

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |     (cmd: AT+CHLD=12)     |                           |
     *==========================>*                           |
(2)  |                           |    MNCC_DISCONNECT_REQ    |
     |                           *==========================>*
(3)  |                           |     MNCC_RELEASE_IND      |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_12)
		cmd_seq	C_PLUS_CHLD_12
(2)	MNCC_DISCONNECT_REQ		
		ti	NUM_1
		cause	MNCC_CAUSE_CALL_CLEAR
		fac_inf	NOT_USED
		ss_version	NOT_USED
(3)	MNCC_RELEASE_IND		
		ti	NUM_1
		cause	MNCC_CAUSE_CALL_CLEAR
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.8 ACI227: Single International Voice Call

Description:

Mobile originated international voice call establishment

Preamble:

ACI001

```
         APL                          ACI                          PS
          |                            |                            |
(1)       |        ACI_CMD_REQ         |                            |
          |     (cmd: AT+CLIR=2)       |                            |
          *==========================>*                            |
(2)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          *<==========================*                            |
(3)       |        ACI_CMD_REQ         |                            |
          |     (cmd: AT+COLP=1)       |                            |
          *==========================>*                            |
(4)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          *<==========================*                            |
(5)       |        ACI_CMD_REQ         |                            |
          |    (cmd: ATD123456;)       |                            |
          *==========================>*                            |
(6)       |                            |       MNCC_SETUP_REQ       |
          |                            *==========================>*
(7)       |                            |        SIM_SYNC_REQ        |
          |                            *==========================>*
(8)       |                            |   MNCC_CALL_PROCEED_IND    |
          |                            *<==========================*
(9)       |                            |     MNCC_PROGRESS_IND      |
          |                            *<==========================*
(10)      |                            |       MNCC_ALERT_IND       |
          |                            *<==========================*
(11)      |                            |       MNCC_SYNC_IND        |
          |                            *<==========================*
(12)      |                            |       MNCC_SETUP_CNF       |
          |                            *<==========================*
(13)      |        ACI_CMD_IND         |                            |
          |     (msg: +COLP:...)       |                            |
          *<==========================*                            |
(14)      |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          *<==========================*                            |
          |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLIR_SUP)	
	cmd_seq	C_PLUS_CLIR_SUP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(5) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_D_VOICE_INT_B)
cmd_seq	C_D_VOICE_INT_B

(6) MNCC_SETUP_REQ

ti	NUM_0
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_PARTY_INT
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(7) SIM_SYNC_REQ

synccs	SYNC_START_CALL

(8) MNCC_CALL_PROCEED_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT

(9) MNCC_PROGRESS_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(10) MNCC_ALERT_IND

ti	NUM_0
progress_desc	PROG_NOT_PRES

(11) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(12) MNCC_SETUP_CNF

ti	NUM_0
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_PARTY
connected_number_sub	S_CLG_PARTY_SUB

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
cmd_seq	M_PLUS_COLP_NUM

(14) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 22.12.98 AK Initial

4.16.9 ACI228: Place all active calls on hold and except call 1 with which communication should be supported

Description:

All active calls will be placed on hold. The held 1 call will be retrieved

Preamble:

ACI051A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT+CHLD=21)      |                             |
     *===========================> *                             |
(2)  |                             |         MNCC_HOLD_REQ       |
     |                             *===========================> *
(3)  |                             |       MNCC_RETRIEVE_REQ     |
     |                             *===========================> *
(4)  |                             |         MNCC_HOLD_CNF       |
     |                             * <===========================*
(5)  |                             |       MNCC_RETRIEVE_CNF     |
     |                             * <===========================*
(6)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_21)
	cmd_seq	C_PLUS_CHLD_21
(2) MNCC_HOLD_REQ		
	ti	NUM_1
(3) MNCC_RETRIEVE_REQ		
	ti	NUM_0
(4) MNCC_HOLD_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_HOLD_SUCCESS
(5) MNCC_RETRIEVE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_RETRIEVE_SUCCESS
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.16.10 ACI229: Release all calls

Description:

Release all calls. One is held one is active

Preamble:

ACI051A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |        ACI_CMD_REQ          |                             |
     |         (cmd: ATH)          |                             |
     *===========================> *                             |
(2)  |                             |     MNCC_DISCONNECT_REQ     |
     |                             *===========================> *
(3)  |                             |        SIM_SYNC_REQ         |
     |                             *===========================> *
(4)  |                             |     MNCC_DISCONNECT_REQ     |
     |                             *===========================> *
(5)  |                             |      MNCC_RELEASE_IND       |
     |                             * <===========================*
(6)  |                             |      MNCC_RELEASE_IND       |
     |                             * <===========================*
(7)  |        ACI_CMD_IND          |                             |
     |         (msg: OK)           |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_H)
	cmd_seq	C_H
(2) MNCC_DISCONNECT_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(3) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(4) MNCC_DISCONNECT_REQ		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(5) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR

(6) MNCC_RELEASE_IND

	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR

(7) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.17 Voice Call Management II (ACI250-ACI270)

4.17.1 ACI250: Second Single Voice Call Disconnected by Remote Party

Description:

Remote user aborts second mobile originated voice call establishment. After that the first call will be disconnected and a new call will be established.

Preamble:

ACI050A

```
     APL                         ACI                          PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: ATD123456;)     |                           |
      *==========================>*                           |
(2)   |                           |       MNCC_HOLD_REQ       |
      |                           *==========================>*
(3)   |                           |       MNCC_HOLD_CNF       |
      |                           *<==========================*
(4)   |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(5)   |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(6)   |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(7)   |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(8)   |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(9)   |                           |    MNCC_DISCONNECT_IND    |
      |                           *<==========================*
(10)  |        ACI_CMD_IND        |                           |
      |     (msg: NO ANSWER)      |                           |
      *<==========================*                           |
(11)  |                           |     MNCC_RELEASE_CNF      |
      |                           *<==========================*
(12)  |        ACI_CMD_REQ        |                           |
      |     (cmd: AT+CHLD=0)      |                           |
      *==========================>*                           |
(13)  |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(14)  |                           |    MNCC_DISCONNECT_REQ    |
      |                           *==========================>*
(15)  |                           |     MNCC_RELEASE_IND      |
      |                           *<==========================*
(16)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(17)  |        ACI_CMD_REQ        |                           |
      |     (cmd: ATD123456;)     |                           |
      *==========================>*                           |
(18)  |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(19)  |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(20)  |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(21)  |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(22)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(23)  |                           |     MNCC_FACILITY_IND     |
      |                           *<==========================*
(24)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(25)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(26)  |        ACI_CMD_IND        |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                           |
(27)  |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_D_VOICE)
		cmd_seq	C_D_VOICE
(2)	MNCC_HOLD_REQ		
		ti	NUM_0
(3)	MNCC_HOLD_CNF		
		ti	NUM_0
		cause	MNCC_CAUSE_HOLD_SUCCESS
(4)	MNCC_SETUP_REQ		
		ti	NUM_1
		prio	PRIO_NORM_CALL
		ri	RI_NOT_PRES
		bcpara	S_BS_VOICE
		bcpara2	S_BS_NOT_PRESENT
		called_party	S_CLD_PARTY
		called_party_sub	S_CLD_PARTY_SUB
		clir_sup	CLR_SUP
		fac_inf	NOT_USED
(5)	MNCC_CALL_PROCEED_IND		
		ti	NUM_1
		progress_desc	PROG_NOT_PRES
		ri	RI_NOT_PRES
		bcpara	S_BS_VOICE
		bcpara2	S_BS_NOT_PRESENT

(6) MNCC_PROGRESS_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(7) MNCC_ALERT_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(8) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(9) MNCC_DISCONNECT_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_NOT_PRES
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_NO_CARRIER)
	cmd_seq	M_NO_CARRIER
(11) MNCC_RELEASE_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
(12) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
	cmd_seq	C_PLUS_CHLD_0
(13) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(14) MNCC_DISCONNECT_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(15) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(17) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(18) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB

	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(19) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(20) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(21) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(22) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(23) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(24) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(25) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(26) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_COLP_NUM)	
	cmd_seq	M_PLUS_COLP_NUM
(27) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.17.2 ACI251: Second Single Voice Call Disconnected by Remote Party

Description:

Remote user aborts second mobile originated voice call establishment. After that another call establishment is tried, which leads to a successful connection.

Preamble:

ACI050A

```
    APL                          ACI                          PS
     |                            |                           |
(1)  |        ACI_CMD_REQ         |                           |
     |      (cmd: ATD123456;)     |                           |
     *===========================>*                           |
(2)  |                            |       MNCC_HOLD_REQ       |
     |                            *==========================>*
(3)  |                            |       MNCC_HOLD_CNF       |
     |                            *<==========================*
(4)  |                            |      MNCC_SETUP_REQ       |
     |                            *==========================>*
(5)  |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<==========================*
(6)  |                            |     MNCC_PROGRESS_IND     |
     |                            *<==========================*
(7)  |                            |      MNCC_ALERT_IND       |
     |                            *<==========================*
(8)  |                            |       MNCC_SYNC_IND       |
     |                            *<==========================*
(9)  |                            |    MNCC_DISCONNECT_IND    |
     |                            *<==========================*
(10) |        ACI_CMD_IND         |                           |
     |      (msg: NO CARRIER)     |                           |
     *<===========================*                           |
(11) |                            |     MNCC_RELEASE_CNF      |
     |                            *<==========================*
(12) |        ACI_CMD_REQ         |                           |
     |      (cmd: ATD123456;)     |                           |
     *===========================>*                           |
(13) |                            |      MNCC_SETUP_REQ       |
     |                            *==========================>*
(14) |                            |   MNCC_CALL_PROCEED_IND   |
     |                            *<==========================*
(15) |                            |     MNCC_PROGRESS_IND     |
     |                            *<==========================*
(16) |                            |      MNCC_ALERT_IND       |
     |                            *<==========================*
(17) |                            |     MNCC_FACILITY_IND     |
     |                            *<==========================*
(18) |                            |       MNCC_SYNC_IND       |
     |                            *<==========================*
(19) |                            |      MNCC_SETUP_CNF       |
     |                            *<==========================*
(20) |        ACI_CMD_IND         |                           |
     |      (msg: +COLP:...)      |                           |
     *<==========================*                         |
(21) |        ACI_CMD_IND         |                         |
     |         (msg: OK)          |                         |
     *<==========================*                         |
     |                            |                         |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(2) MNCC_HOLD_REQ		
	ti	NUM_0
(3) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_HOLD_SUCCESS
(4) MNCC_SETUP_REQ		
	ti	NUM_1
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(5) MNCC_CALL_PROCEED_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(6) MNCC_PROGRESS_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(7) MNCC_ALERT_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(8) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(9) MNCC_DISCONNECT_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_NOT_PRES

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_NO_CARRIER)
cmd_seq	M_NO_CARRIER

(11) MNCC_RELEASE_CNF

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR

(12) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_D_VOICE)
cmd_seq	C_D_VOICE

(13) MNCC_SETUP_REQ

ti	NUM_1
prio	PRIO_NORM_CALL
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	NOT_USED

(14) MNCC_CALL_PROCEED_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_NOT_PRESENT

(15) MNCC_PROGRESS_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(16) MNCC_ALERT_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(17) MNCC_FACILITY_IND

ti	NUM_1
fac_context	FAC_IN_ALERT
fac_inf	S_FAC_AOC

(18) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(19) MNCC_SETUP_CNF

ti	NUM_1
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_PARTY
connected_number_sub	S_CLG_PARTY_SUB

(20) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
cmd_seq	M_PLUS_COLP_NUM

(21) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 02.03.00 AK Initial

4.17.3 ACI252: Second Single Voice Call Disconnected by Remote Party with in-band tones

Description:

Remote user aborts second mobile originated voice call establishment. After that the first call will be disconnected and a new call will be established.

Preamble:

ACI050B

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |      (cmd: ATD123456;)     |                            |
     *===========================>*                            |
(2)  |                            |        MNCC_HOLD_REQ       |
     |                            *===========================>*
(3)  |                            |        MNCC_HOLD_CNF       |
     |                            *<===========================*
(4)  |                            |       MNCC_SETUP_REQ       |
     |                            *===========================>*
(5)  |                            |   MNCC_CALL_PROCEED_IND    |
     |                            *<===========================*
(6)  |                            |     MNCC_PROGRESS_IND      |
     |                            *<===========================*
(7)  |                            |       MNCC_ALERT_IND       |
     |                            *<===========================*
(8)  |                            |        MNCC_SYNC_IND       |
     |                            *<===========================*
(9)  |                            |    MNCC_DISCONNECT_IND     |
     |                            *<===========================*
(10) |       ACI_ABORT_REQ        |                            |
     *===========================>*                            |
(11) |                            |      MNCC_RELEASE_REQ      |
     |                            *===========================>*
(12) |                            |      MNCC_RELEASE_CNF      |
     |                            *<===========================*
(13) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(14) |         ACI_CMD_REQ        |                            |
     |      (cmd: AT+CHLD=0)      |                            |
     *===========================>*                            |
(15) |                            |        SIM_SYNC_REQ        |
     |                            *===========================>*
(16) |                            |    MNCC_DISCONNECT_REQ     |
     |                            *===========================>*
(17) |                            |      MNCC_RELEASE_IND      |
     |                            *<===========================*
(18) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
(19) |         ACI_CMD_REQ        |                            |
     |      (cmd: ATD123456;)     |                            |
     *===========================>*                            |
(20)  |                           |      MNCC_SETUP_REQ       |
      |                           *==========================>*
(21)  |                           |       SIM_SYNC_REQ        |
      |                           *==========================>*
(22)  |                           |   MNCC_CALL_PROCEED_IND   |
      |                           *<==========================*
(23)  |                           |     MNCC_PROGRESS_IND     |
      |                           *<==========================*
(24)  |                           |      MNCC_ALERT_IND       |
      |                           *<==========================*
(25)  |                           |     MNCC_FACILITY_IND     |
      |                           *<==========================*
(26)  |                           |       MNCC_SYNC_IND       |
      |                           *<==========================*
(27)  |                           |      MNCC_SETUP_CNF       |
      |                           *<==========================*
(28)  |       ACI_CMD_IND         |                           |
      |     (msg: +COLP:...)      |                           |
      *<==========================*                           |
(29)  |       ACI_CMD_IND         |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(2) MNCC_HOLD_REQ		
	ti	NUM_0
(3) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_HOLD_SUCCESS
(4) MNCC_SETUP_REQ		
	ti	NUM_1
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(5) MNCC_CALL_PROCEED_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT

(6) MNCC_PROGRESS_IND

ti	NUM_1
progress_desc	PROG_INBAND_AVAIL

(7) MNCC_ALERT_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(8) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(9) MNCC_DISCONNECT_IND

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR
diagnostic	NOT_PRESENT_8BIT
progress_desc	PROG_INBAND_AVAIL

(10) ACI_ABORT_REQ

cmd_src	CMD_SRC_EXT
cause	ABT_ABORT_CMD

(11) MNCC_RELEASE_REQ

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR
fac_inf	A_FAC_EMPTY
ss_version	NOT_USED

(12) MNCC_RELEASE_CNF

ti	NUM_1
cause	MNCC_CAUSE_CALL_CLEAR

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(14) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
cmd_seq	C_PLUS_CHLD_0

(15) SIM_SYNC_REQ

synccs	SYNC_STOP_CALL

(16) MNCC_DISCONNECT_REQ

ti	NUM_0
cause	MNCC_CAUSE_CALL_CLEAR
fac_inf	NOT_USED
ss_version	NOT_USED

(17) MNCC_RELEASE_IND

ti	NUM_0
cause	MNCC_CAUSE_CALL_CLEAR

(18) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

(19) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(20) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(21) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(22) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(23) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(24) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(25) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(26) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(27) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(28) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
	cmd_seq	M_PLUS_COLP_NUM
(29) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.17.4 ACI253: Second Single Voice Call Disconnected by Remote Party

Description:

Remote user aborts second mobile originated voice call establishment. After that another call establishment is tried, which leads to a successful connection.

Preamble:

ACI050A

```
        APL                          ACI                          PS
         |                            |                            |
(1)      |        ACI_CMD_REQ         |                            |
         |     (cmd: ATD123456;)      |                            |
         *===========================>*                            |
(2)      |                            |        MNCC_HOLD_REQ       |
         |                            *===========================>*
(3)      |                            |        MNCC_HOLD_CNF       |
         |                            *<===========================*
(4)      |                            |       MNCC_SETUP_REQ       |
         |                            *===========================>*
(5)      |                            |   MNCC_CALL_PROCEED_IND    |
         |                            *<===========================*
(6)      |                            |     MNCC_PROGRESS_IND      |
         |                            *<===========================*
(7)      |                            |       MNCC_ALERT_IND       |
         |                            *<===========================*
(8)      |                            |       MNCC_SYNC_IND        |
         |                            *<===========================*
(9)      |                            |    MNCC_DISCONNECT_IND     |
         |                            *<===========================*
(10)     |       ACI_ABORT_REQ        |                            |
         *===========================>*                            |
(11)     |                            |      MNCC_RELEASE_REQ      |
         |                            *===========================>*
(12)     |                            |      MNCC_RELEASE_CNF      |
         |                            *<===========================*
(13)     |        ACI_CMD_IND         |                            |
         |         (msg: OK)          |                            |
         *<===========================*                            |
(14)     |        ACI_CMD_REQ         |                            |
         |     (cmd: ATD123456;)      |                            |
         *===========================>*                            |
(15)     |                            |       MNCC_SETUP_REQ       |
         |                            *===========================>*
(16)     |                            |   MNCC_CALL_PROCEED_IND    |
         |                            *<===========================*
(17)     |                            |     MNCC_PROGRESS_IND      |
         |                            *<===========================*
(18)     |                            |       MNCC_ALERT_IND       |
         |                            *<===========================*
(19)     |                            |     MNCC_FACILITY_IND      |
         |                            *<===========================*
(20)     |                            |       MNCC_SYNC_IND        |
         |                            *<===========================*
```

```
(21)  |                          |        MNCC_SETUP_CNF         |
      |                          *<============================*
(22)  |        ACI_CMD_IND       |                               |
      |      (msg: +COLP:...)    |                               |
      *<=========================*                               |
(23)  |        ACI_CMD_IND       |                               |
      |         (msg: OK)        |                               |
      *<=========================*                               |
      |                          |                               |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_D_VOICE)
		cmd_seq	C_D_VOICE
(2)	MNCC_HOLD_REQ		
		ti	NUM_0
(3)	MNCC_HOLD_CNF		
		ti	NUM_0
		cause	MNCC_CAUSE_HOLD_SUCCESS
(4)	MNCC_SETUP_REQ		
		ti	NUM_1
		prio	PRIO_NORM_CALL
		ri	RI_NOT_PRES
		bcpara	S_BS_VOICE
		bcpara2	S_BS_NOT_PRESENT
		called_party	S_CLD_PARTY
		called_party_sub	S_CLD_PARTY_SUB
		clir_sup	CLR_SUP
		fac_inf	NOT_USED
(5)	MNCC_CALL_PROCEED_IND		
		ti	NUM_1
		progress_desc	PROG_NOT_PRES
		ri	RI_NOT_PRES
		bcpara	S_BS_VOICE
		bcpara2	S_BS_NOT_PRESENT
(6)	MNCC_PROGRESS_IND		
		ti	NUM_1
		progress_desc	PROG_INBAND_AVAIL
(7)	MNCC_ALERT_IND		
		ti	NUM_1
		progress_desc	PROG_NOT_PRES
(8)	MNCC_SYNC_IND		
		ti	NOT_PRESENT_8BIT
		cause	MNCC_CAUSE_CHANNEL_SYNC
		chm	S_CHN_SPEECH
(9)	MNCC_DISCONNECT_IND		
		ti	NUM_1
		cause	MNCC_CAUSE_CALL_CLEAR

	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_INBAND_AVAIL
(10) ACI_ABORT_REQ		
	cmd_src	CMD_SRC_EXT
	cause	ABT_ABORT_CMD
(11) MNCC_RELEASE_REQ		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	A_FAC_EMPTY
	ss_version	NOT_USED
(12) MNCC_RELEASE_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(14) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(15) MNCC_SETUP_REQ		
	ti	NUM_1
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	NOT_USED
(16) MNCC_CALL_PROCEED_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(17) MNCC_PROGRESS_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(18) MNCC_ALERT_IND		
	ti	NUM_1
	progress_desc	PROG_NOT_PRES
(19) MNCC_FACILITY_IND		
	ti	NUM_1
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(20) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH

(21) MNCC_SETUP_CNF		
	ti	NUM_1
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(22) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PLUS_COLP_NUM)	
	cmd_seq	M_PLUS_COLP_NUM
(23) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 02.03.00 AK Initial

4.17.5 ACI254: Single Call Termination with atz Command

Description:

call termination procedure atz Command .

Preamble:

ACI050A

```
        APL                            ACI                            PS
         |                              |                              |
(1)      |         ACI_CMD_REQ          |                              |
         |         (cmd: ATZ)           |                              |
         *============================> *                              |
(2)      |                              |         SIM_SYNC_REQ         |
         |                              *============================> *
(3)      |                              |     MNCC_DISCONNECT_REQ      |
         |                              *============================> *
(4)      |                              |       MNCC_RELEASE_IND       |
         |                              * <============================*
(5)      |                              |     MNCC_CONFIGURE_REQ       |
         |                              *============================> *
(6)      |         ACI_CMD_IND          |                              |
         |         (msg: OK)            |                              |
         * <============================*                              |
         |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_Z)
	cmd_seq	C_Z
(2) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL

(3) MNCC_DISCONNECT_REQ	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(4) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(5) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DAT_default
	sns_mode	SNS_MODE_VOICE
	ctm_ena	NOT_USED
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 21.09.99 ACI Initial

4.17.6 ACI255: Release all calls with ATZ Command

Description:

Release all calls. One is held one is active

Preamble:

ACI051A

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |         ACI_CMD_REQ        |                            |
      |         (cmd: ATZ)         |                            |
      *==========================> *                            |
(2)   |                            |     MNCC_DISCONNECT_REQ    |
      |                            *==========================> *
(3)   |                            |         SIM_SYNC_REQ       |
      |                            *==========================> *
(4)   |                            |     MNCC_DISCONNECT_REQ    |
      |                            *==========================> *
(5)   |                            |       MNCC_RELEASE_IND     |
      |                            *<========================== *
(6)   |                            |       MNCC_RELEASE_IND     |
      |                            *<========================== *
(7)   |                            |      MNCC_CONFIGURE_REQ    |
      |                            *==========================> *
(8)   |         ACI_CMD_IND        |                            |
      |          (msg: OK)         |                            |
      *<========================== *                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_Z)
	cmd_seq	C_Z
(2) MNCC_DISCONNECT_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(3) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(4) MNCC_DISCONNECT_REQ		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	NOT_USED
	ss_version	NOT_USED
(5) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(6) MNCC_RELEASE_IND		
	ti	NUM_1
	cause	MNCC_CAUSE_CALL_CLEAR
(7) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DAT_default
	sns_mode	SNS_MODE_VOICE
	ctm_ena	NOT_USED
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.17.7 ACI256: Call Termination with in-band tones by using ATZ command

Description:

call termination procedure with in-band tones active by using ATZ command.

Preamble:

ACI050A

```
    APL                          ACI                          PS
     |                            |                            |
(9)  |                            |     MNCC_DISCONNECT_IND    |
     |                            *<===========================*
(1)  |        ACI_CMD_REQ         |                            |
     |        (cmd: ATZ)          |                            |
     *===========================>*                            |
(2)  |                            |        SIM_SYNC_REQ        |
     |                            *===========================>*
(3)  |                            |      MNCC_RELEASE_REQ      |
     |                            *===========================>*
(4)  |                            |      MNCC_RELEASE_CNF      |
     |                            *<===========================*
(5)  |                            |     MNCC_CONFIGURE_REQ     |
     |                            *===========================>*
(6)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(30) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	diagnostic	NOT_PRESENT_8BIT
	progress_desc	PROG_INBAND_AVAIL
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_Z)
	cmd_seq	C_Z
(2) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(3) MNCC_RELEASE_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
	fac_inf	A_FAC_EMPTY
	ss_version	NOT_USED
(4) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_NO_NET_CAUSE

(5) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DAT_default
	sns_mode	SNS_MODE_VOICE
	ctm_ena	NOT_USED
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.05.01 ACI Initial

4.17.8 ACI257: Set parameter to default value

Description:

Set parameter to default value when no call or waiting call is active

Preamble:

ACI001

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |        (cmd: ATZ)        |                          |
     *=========================>*                          |
(2)  |                          |    MNCC_CONFIGURE_REQ    |
     |                          *=========================>*
(3)  |        ACI_CMD_IND       |                          |
     |         (msg: OK)        |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_Z)
	cmd_seq	C_Z
(2) MNCC_CONFIGURE_REQ		
	called_party_sub	NOT_USED
	bcpara	S_BS_DAT_default
	sns_mode	SNS_MODE_VOICE
	ctm_ena	NOT_USED
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.12.98 ACI Initial

4.18 Ciphering Indicator Test Cases (ACI260-ACI270)

4.18.1 ACI260: CI is disabled, test set command

Description:

Preamble:

ACI024A

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |      (cmd: %CPRI=1)      |                          |
     *=========================>*                          |
(2)  |        ACI_CMD_IND       |                          |
     |  (msg: op not allowed)   |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_S1)
	cmd_seq	C_PERCENT_CPRI_S1
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_OPERATION)
	cmd_seq	M_ERR_OPERATION

History:	29.10.01	TLU	Initial

4.18.2 ACI261: CI is disabled, test query command

Description:

Preamble:

ACI024A

```
    APL                              ACI                              PS
     |                                |                                |
(1)  |          ACI_CMD_REQ           |                                |
     |         (cmd: %CPRI?)          |                                |
     *===========================>*                                |
(2)  |          ACI_CMD_IND           |                                |
     |        (msg: %CPRI: 2)         |                                |
     *<===========================*                                |
(3)  |          ACI_CMD_IND           |                                |
     |           (msg: OK)            |                                |
     *<===========================*                                |
     |                                |                                |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_Q1)
	cmd_seq	C_PERCENT_CPRI_Q1
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPRI_Q1)
	cmd_seq	M_PERCENT_CPRI_Q1
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.10.01 TLU Initial

4.18.3 ACI262: CI is disabled, test test command

Description:

Preamble:

ACI024A

```
    APL                             ACI                            PS
     |                               |                              |
(1)  |          ACI_CMD_REQ          |                              |
     |        (cmd: %CPRI=?)         |                              |
     *===========================>*                                 |
(2)  |          ACI_CMD_IND          |                              |
     |      (msg: %CPRI: (0,1)       |                              |
     *<===========================*                                 |
(3)  |          ACI_CMD_IND          |                              |
     |           (msg: OK)           |                              |
     *<===========================*                                 |
     |                               |                              |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_T1)
		cmd_seq	C_PERCENT_CPRI_T1
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_CPRI_T1)
		cmd_seq	M_PERCENT_CPRI_T1
(3)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 29.10.01 TLU Initial

4.18.4 ACI263: CI is enabled, test set and test command

Description:

Preamble:

ACI024B

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: %CPRI=1)       |                           |
     *==========================>*                           |
(2)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
(3)  |        ACI_CMD_REQ        |                           |
     |      (cmd: %CPRI=?)       |                           |
     *==========================>*                           |
(4)  |        ACI_CMD_IND        |                           |
     |    (msg: %CPRI: (0,1)     |                           |
     *<==========================*                           |
(5)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_S1)
	cmd_seq	C_PERCENT_CPRI_S1
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_T1)
	cmd_seq	C_PERCENT_CPRI_T1
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPRI_T1)
	cmd_seq	M_PERCENT_CPRI_T1
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.10.01 TLU Initial

4.18.5 ACI264: CI is enabled, test query command and ciphering indication

Description:

Preamble:

ACI263

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |        ACI_CMD_REQ         |                             |
     |       (cmd: %CPRI?)        |                             |
     *==========================>*                              |
(2)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPRI: 1)       |                             |
     *<==========================*                              |
(3)  |        ACI_CMD_IND         |                             |
     |         (msg: OK)          |                             |
     *<==========================*                              |
(4)  |                            |      MMR_CIPHERING_IND      |
     |                            *<===========================*
(5)  |        ACI_CMD_IND         |                             |
     |     (msg: %CPRI: 1,2)      |                             |
     *<==========================*                              |
(6)  |                            |        SIM_REMOVE_IND       |
     |                            *<===========================*
(7)  |        ACI_CMD_IND         |                             |
     |     (msg: %SIMREM: 0)      |                             |
     *<==========================*                              |
(8)  |        ACI_CMD_REQ         |                             |
     |       (cmd: %CPRI=0)       |                             |
     *==========================>*                              |
(9)  |        ACI_CMD_IND         |                             |
     |         (msg: OK)          |                             |
     *<==========================*                              |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_CPRI_Q1)	
	cmd_seq	C_PERCENT_CPRI_Q1
(2) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PERCENT_CPRI_Q2)	
	cmd_seq	M_PERCENT_CPRI_Q2
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(4)	MMR_CIPHERING_IND		
		ciph	CIPH_ON
(5)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_CPRI_U1)
		cmd_seq	M_PERCENT_CPRI_U1
(6)	SIM_REMOVE_IND		
		cause	SIM_NO_ERROR
(7)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_SIMREM_ERR_0)
		cmd_seq	M_PERCENT_SIMREM_ERR_0
(8)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PERCENT_CPRI_S2)
		cmd_seq	C_PERCENT_CPRI_S2
(9)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History:	29.10.01	TLU	Initial

4.19 Call Completion to Busy Subscriber (ACI300-ACI349)

4.19.1 ACI300: Call Establishment Attempt to Busy User, CCBS indicated.

Description:

Mobile originated voice call establishment attempt. The network indicates that the B subscriber is busy and that CCBS is possible.

Preamble:

ACI001

Variants: <A>....<E>

```
         APL                          ACI                          PS
          |                            |                            |
(1)       |        ACI_CMD_REQ         |                            |
          |     (cmd: AT%CCBS=1)       |                            |
          *===========================>*                            |
(2)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          *<===========================*                            |
(3)       |        ACI_CMD_REQ         |                            |
          |     (cmd: ATD123456;)      |                            |
          *===========================>*                            |
(4)       |                            |       MNCC_SETUP_REQ       |
          |                            *===========================>*
(5)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          *<===========================*                            |
(6)       |                            |        SIM_SYNC_REQ        |
          |                            *===========================>*
(7)       |                            |   MNCC_CALL_PROCEED_IND    |
          |                            *<===========================*
(8)       |                            |     MNCC_PROGRESS_IND      |
          |                            *<===========================*
(9)       |                            |    MNCC_DISCONNECT_IND     |
          |                            *<===========================*
(10)      |                            |        SIM_SYNC_REQ        |
          |                            *===========================>*
(11)      |        ACI_CMD_IND         |                            |
          |     (msg: %CCBS: ...)      |                            |
          *<===========================*                            |
(12)      |        ACI_CMD_IND         |                            |
          |        (msg: BUSY)         |                            |
          *<===========================*                            |
          |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_CCBS_ENA)	
	cmd_seq	C_PERCENT_CCBS_ENA
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_VOICE)
	cmd_seq	C_D_VOICE
(4) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE

	bcpara2	S_BS_NOT_PRESENT
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	NOT_PRESENT_8BIT
	fac_inf	NOT_USED
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(6) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL
(7) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_NOT_PRESENT
(8) MNCC_PROGRESS_IND		
	ti	NUM_0
<A>	progress_desc	PROG_NOT_PRES
<B>	progress_desc	PROG_INBAND_AVAIL
<C>	progress_desc	PROG_NO_END_TO_END_PLMN
<D>	progress_desc	PROG_DEST_NON_PLMN
<E>	progress_desc	PROG_ORIGIN_NON_PLMN
(9) MNCC_DISCONNECT_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_USER_BUSY
	diagnostic	DIAG_CCBS_POSSIBLE
	progress_desc	PROG_NOT_PRES
(10) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL
(11) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CCBS_PSSBL)	
	cmd_seq	M_PERCENT_CCBS_PSSBL
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_BUSY)
	cmd_seq	M_BUSY

History: 27.03.00 AK Initial

4.19.2 ACI301: Call release with CCBS possible, user rejects

Description:

The CCBS possibility is rejected by the user, call will be released.

Variants: <A>....<B>

Preamble:

<A>ACI300A
<B>ACI300B

```
      APL                        ACI                        PS
       |                          |                          |
(1)    |        ACI_CMD_REQ       |                          |
       |        (cmd: ATH)        |                          |
       *=========================>*                          |
(2)    |                          |     MNCC_RELEASE_REQ     |
       |                          *=========================>*
(3)    |                          |     MNCC_RELEASE_CNF     |
       |                          *<=========================*
(4)    |        ACI_CMD_IND       |                          |
       |        (msg: OK)         |                          |
       *<=========================*                          |
       |                          |                          |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_H)
		cmd_seq	C_H
(2)	MNCC_RELEASE_REQ		
		ti	NUM_0
		cause	MNCC_CAUSE_CALL_CLEAR
		fac_inf	A_FAC_EMPTY
		ss_version	NOT_USED
(3)	MNCC_RELEASE_CNF		
		ti	NUM_0
		cause	NOT_PRESENT_8BIT
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 31.03.00 AK Initial

4.19.3 ACI302: Call release with CCBS possible, timeout by the network.

Description:

The CCBS possibility is timed out by the network, call will be released.

Variants: <A>....<B>

Preamble:

<A>ACI300A
<B>ACI300B

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |      MNCC_RELEASE_IND      |
     |                            *<===========================*
(2)  |        ACI_CMD_IND         |                            |
     |     (msg: %CCBS: ...)      |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_USER_BUSY
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CCBS_PSSBL_TMO)
	cmd_seq	M_PERCENT_CCBS_PSSBL_TMO

History: 31.03.00 AK Initial

4.19.4 ACI303: Call release with CCBS possible, user accepts

Description:

The CCBS possibility is accepted by the user, call will be released with CCBS activate registration facility send to the network.

Variants: <A>....<B>

Preamble:

<A>ACI300A
<B>ACI300B

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |     (cmd: AT+CHLD=5)       |                            |
     *===========================>*                            |
(2)  |                            |      MNCC_RELEASE_REQ      |
     |                            *===========================>*
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_5)
	cmd_seq	C_PLUS_CHLD_5
(2) MNCC_RELEASE_REQ		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR

	fac_inf	A_FAC_CCBS
	ss_version	SS_VERSION_3

History: 31.03.00 AK Initial

4.19.5 ACI304: Successful registration of CCBS.

Description:

The network send a positve result for the CCBS activation request.

Variants: <A>....<B>

Preamble:

<A>ACI303A
<B>ACI303B

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |                             |      MNCC_FACILITY_IND      |
     |                             *<============================*
(2)  |                             |      MNCC_RELEASE_CNF       |
     |                             *<============================*
(3)  |         ACI_CMD_IND         |                             |
     |      (msg: %CCBS: ...)      |                             |
     *<============================*                             |
(4)  |         ACI_CMD_IND         |                             |
     |        (msg: OK ...)        |                             |
     *<============================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	NOT_USED
	fac_inf	A_FAC_CCBS_RES
(2) MNCC_RELEASE_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_NO_NET_CAUSE
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CCBS_REG_V)
	cmd_seq	M_PERCENT_CCBS_REG_V
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 31.03.00 AK Initial

4.19.6 ACI305: Unsuccessful registration of CCBS.

Description:

The network send a negative result for the CCBS activation request.

Variants: <A>....<B>

Preamble:

<A>ACI303A
<B>ACI303B

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |                            |     MNCC_FACILITY_IND      |
      |                            *<===========================*
(2)   |                            |     MNCC_RELEASE_CNF       |
      |                            *<===========================*
(3)   |        ACI_CMD_IND         |                            |
      |      (msg: ERROR ...)      |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	MNCC_FACILITY_IND		
		ti	NUM_0
		fac_context	NOT_USED
		fac_inf	A_FAC_CCBS_ERR
(2)	MNCC_RELEASE_CNF		
		ti	NUM_0
		cause	MNCC_CAUSE_NO_NET_CAUSE
(3)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERROR)
		cmd_seq	M_ERROR

History: 04.04.00 AK Initial

4.19.7 ACI306: CC prompts for TI

Description:

The network starts to establish a recall. CC asks for a valid TI for the recall transaction

Variants: <A>....<B>

Preamble:

<A>ACI304A
<B>ACI050A

```
     APL                                ACI                              PS
      |                                  |                                |
(1)   |                                  |        MNCC_PROMPT_IND         |
      |                                  *<==============================*
(2)   |                                  |        MNCC_PROMPT_RSP         |
      |                                  *==============================>*
      |                                  |                                |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_PROMPT_IND		
(2) MNCC_PROMPT_RSP		
<A>	ti	NUM_0
<B>	ti	NUM_1

History:	04.04.00	AK	Initial

4.19.8 ACI307: Network stops recall attempt before the user indication

Description:

The network stops the recall establishment for the recall. No indication was given to the user. The used TI is returned to ACI. To check this, another prompt request follows which should have the same TI.

Preamble:

ACI306A

```
     APL                                ACI                              PS
      |                                  |                                |
(1)   |                                  |       MNCC_RELEASE_IND         |
      |                                  *<==============================*
(2)   |                                  |        MNCC_PROMPT_IND         |
      |                                  *<==============================*
(3)   |                                  |        MNCC_PROMPT_RSP         |
      |                                  *==============================>*
      |                                  |                                |
```

Parametrization:

Primitive	Parameter	Value
(1) MNCC_RELEASE_IND		
	ti	NUM_0
	cause	MNCC_CAUSE_CALL_CLEAR
(2) MNCC_PROMPT_IND		
(3) MNCC_PROMPT_RSP		
	ti	NUM_0

History: 04.04.00 AK Initial

4.19.9 ACI308: CCBS recall

Description:

The network inititates a CCBS recall.

Variants: <A>....<B>

Preamble:

<A>ACI306A
<B>ACI306B

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |      (cmd: AT%CCBS=1)     |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |         (msg: OK)         |                           |
      *<==========================*                           |
(3)   |                           |      MNCC_RECALL_IND      |
      |                           *<==========================*
(4)   |                           |     MNCC_FACILITY_IND     |
      |                           *<==========================*
(5)   |        ACI_CMD_IND        |                           |
      |     (msg: %CCBS: ...)     |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CCBS_ENA)	
	cmd_seq	C_PERCENT_CCBS_ENA
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) MNCC_RECALL_IND		
<A>	ti	NUM_0
<B>	ti	NUM_1
	ri	RI_CIRCULAR
	bcpara	S_BS_VOICE
	bcpara2	S_BS_FAX
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	rcl_type	RCL_CCBS
(4) MNCC_FACILITY_IND		
<A>	ti	NUM_0
<B>	ti	NUM_1

	fac_context	NOT_USED
	fac_inf	A_FAC_NTFY_CCBS
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CCBS_RECALL)
	cmd_seq	M_PERCENT_CCBS_RECALL

History: 04.04.00 AK Initial

4.19.10 ACI309: User reject CCBS recall

Description:

The network inititated CCBS recall. is rejected by the user.

Preamble:

ACI308A

Variants: <A>....<B>

```
    APL                           ACI                            PS
     |                             |                              |
(1)  |         ACI_CMD_REQ         |                              |
     |   (msg: ATH,+CHLD=0 ...)    |                              |
     *===========================> *                              |
(2)  |                             |       MNCC_REJECT_REQ        |
     |                             *============================> *
(3)  |         ACI_CMD_IND         |                              |
     |          (msg: OK)          |                              |
     *<=========================== *                              |
     |                             |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_H)
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_0)
<A>	cmd_seq	C_H
<B>	cmd_seq	C_PLUS_CHLD_0
(2) MNCC_REJECT_REQ		
	ti	NUM_0
<A>	cause	MNCC_CAUSE_CALL_REJECT
<B>	cause	MNCC_CAUSE_USER_BUSY
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 04.04.00 AK Initial

4.19.11 ACI310: User does not respond to recall attempt within time

Description:

The network inititated CCBS recall. is not answered by the user within the desired time.

Preamble:

ACI308A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |      MNCC_RELEASE_IND      |
     |                            *<===========================*
(3)  |        ACI_CMD_IND         |                            |
     |     (msg: &CCBS: ...)      |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	MNCC_RELEASE_IND		
		ti	NUM_0
		cause	MNCC_CAUSE_MS_TIMER
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_CCBS_RCL_TMO)
		cmd_seq	M_PERCENT_CCBS_RCL_TMO

History: 04.04.00 AK Initial

4.19.12 ACI311: User accepts CCBS recall

Description:

The network inititated CCBS recall. is accepted by the user.

Preamble:

ACI308A

```
    APL                         ACI                          PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |        (msg: ATA)         |                           |
     *==========================>*                           |
(2)  |                           |       MNCC_SETUP_REQ      |
     |                           *==========================>*
(3)  |                           |        SIM_SYNC_REQ       |
     |                           *==========================>*
(4)  |                           |   MNCC_CALL_PROCEED_IND   |
     |                           *<==========================*
(5)  |                           |     MNCC_PROGRESS_IND     |
     |                           *<==========================*
(6)  |                           |       MNCC_ALERT_IND      |
     |                           *<==========================*
(7)  |                           |     MNCC_FACILITY_IND     |
     |                           *<==========================*
(8)  |                           |       MNCC_SYNC_IND       |
     |                           *<==========================*
(9)  |                           |       MNCC_SETUP_CNF      |
     |                           *<==========================*
(10) |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_A)
	cmd_seq	C_A
(2) MNCC_SETUP_REQ		
	ti	NUM_0
	prio	PRIO_NORM_CALL
	ri	RI_CIRCULAR
	bcpara	S_BS_VOICE
	bcpara2	S_BS_FAX
	called_party	S_CLD_PARTY
	called_party_sub	S_CLD_PARTY_SUB
	clir_sup	CLR_SUP
	fac_inf	A_FAC_EMPTY
(3) SIM_SYNC_REQ		
	synccs	SYNC_START_CALL

(4) MNCC_CALL_PROCEED_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
	ri	RI_NOT_PRES
	bcpara	S_BS_VOICE
	bcpara2	S_BS_FAX
(5) MNCC_PROGRESS_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(6) MNCC_ALERT_IND		
	ti	NUM_0
	progress_desc	PROG_NOT_PRES
(7) MNCC_FACILITY_IND		
	ti	NUM_0
	fac_context	FAC_IN_ALERT
	fac_inf	S_FAC_AOC
(8) MNCC_SYNC_IND		
	ti	NOT_PRESENT_8BIT
	cause	MNCC_CAUSE_CHANNEL_SYNC
	chm	S_CHN_SPEECH
(9) MNCC_SETUP_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_SUCCESS
	progress_desc	PROG_NOT_PRES
	connected_number	S_CLG_PARTY
	connected_number_sub	S_CLG_PARTY_SUB
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.19.13 ACI312: User accepts CCBS recall, active has to be put on hold first

Description:

The network inititated CCBS recall. is accepted by the user. The active call will be put on hold prior to the recall setup.

Preamble:

ACI308B

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |      (msg: AT+CHLD=2)      |                            |
     *===========================>*                            |
(2)  |                            |        MNCC_HOLD_REQ       |
     |                            *===========================>*
(3)  |                            |        MNCC_HOLD_CNF       |
     |                            *<===========================*
(4)  |                            |       MNCC_SETUP_REQ       |
     |                            *===========================>*
(5)  |                            |   MNCC_CALL_PROCEED_IND    |
     |                            *<===========================*
(6)  |                            |     MNCC_PROGRESS_IND      |
     |                            *<===========================*
(7)  |                            |       MNCC_ALERT_IND       |
     |                            *<===========================*
(8)  |                            |     MNCC_FACILITY_IND      |
     |                            *<===========================*
(9)  |                            |        MNCC_SYNC_IND       |
     |                            *<===========================*
(10) |                            |       MNCC_SETUP_CNF       |
     |                            *<===========================*
(11) |         ACI_CMD_IND        |                            |
     |      (msg: +COLP: ...)     |                            |
     *<===========================*                            |
(12) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_2)
	cmd_seq	C_PLUS_CHLD_2
(2) MNCC_HOLD_REQ		
	ti	NUM_0
(3) MNCC_HOLD_CNF		
	ti	NUM_0
	cause	MNCC_CAUSE_HOLD_SUCCESS

(4) MNCC_SETUP_REQ

ti	NUM_1
prio	PRIO_NORM_CALL
ri	RI_CIRCULAR
bcpara	S_BS_VOICE
bcpara2	S_BS_FAX
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	A_FAC_EMPTY

(5) MNCC_CALL_PROCEED_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_FAX

(6) MNCC_PROGRESS_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(7) MNCC_ALERT_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(8) MNCC_FACILITY_IND

ti	NUM_1
fac_context	FAC_IN_ALERT
fac_inf	S_FAC_AOC

(9) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(10) MNCC_SETUP_CNF

ti	NUM_1
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_PARTY
connected_number_sub	S_CLG_PARTY_SUB

(11) ACI_CMD_IND

cmd_len NUM_ELEMENTS(M_PLUS_COLP_NUM)	
cmd_seq	M_PLUS_COLP_NUM

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

4.19.14 ACI313: User accepts CCBS recall, active has to be cleared first

Description:

The network inititated CCBS recall. is accepted by the user. The active call will be cleared prior to the recall setup.

Preamble:

ACI308B

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (msg: AT+CHLD=1)       |                             |
     *============================>*                             |
(2)  |                             |        SIM_SYNC_REQ         |
     |                             *============================>*
(3)  |                             |    MNCC_DISCONNECT_REQ      |
     |                             *============================>*
(4)  |                             |      MNCC_RELEASE_IND       |
     |                             *<============================*
(5)  |                             |       MNCC_SETUP_REQ        |
     |                             *============================>*
(6)  |                             |        SIM_SYNC_REQ         |
     |                             *============================>*
(7)  |                             |   MNCC_CALL_PROCEED_IND     |
     |                             *<============================*
(8)  |                             |     MNCC_PROGRESS_IND       |
     |                             *<============================*
(9)  |                             |       MNCC_ALERT_IND        |
     |                             *<============================*
(10) |                             |     MNCC_FACILITY_IND       |
     |                             *<============================*
(11) |                             |       MNCC_SYNC_IND         |
     |                             *<============================*
(12) |                             |       MNCC_SETUP_CNF        |
     |                             *<============================*
(13) |         ACI_CMD_IND         |                             |
     |      (msg: +COLP: ...)      |                             |
     *<============================*                             |
(14) |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<============================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CHLD_1)
	cmd_seq	C_PLUS_CHLD_1
(2) SIM_SYNC_REQ		
	synccs	SYNC_STOP_CALL

(3) MNCC_DISCONNECT_REQ

ti	NUM_0
cause	MNCC_CAUSE_CALL_CLEAR
fac_inf	NOT_USED
ss_version	NOT_USED

(4) MNCC_RELEASE_IND

ti	NUM_0
cause	MNCC_CAUSE_NO_NET_CAUSE

(5) MNCC_SETUP_REQ

ti	NUM_1
prio	PRIO_NORM_CALL
ri	RI_CIRCULAR
bcpara	S_BS_VOICE
bcpara2	S_BS_FAX
called_party	S_CLD_PARTY
called_party_sub	S_CLD_PARTY_SUB
clir_sup	CLR_SUP
fac_inf	A_FAC_EMPTY

(6) SIM_SYNC_REQ

synccs	SYNC_START_CALL

(7) MNCC_CALL_PROCEED_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES
ri	RI_NOT_PRES
bcpara	S_BS_VOICE
bcpara2	S_BS_FAX

(8) MNCC_PROGRESS_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(9) MNCC_ALERT_IND

ti	NUM_1
progress_desc	PROG_NOT_PRES

(10) MNCC_FACILITY_IND

ti	NUM_1
fac_context	FAC_IN_ALERT
fac_inf	S_FAC_AOC

(11) MNCC_SYNC_IND

ti	NOT_PRESENT_8BIT
cause	MNCC_CAUSE_CHANNEL_SYNC
chm	S_CHN_SPEECH

(12) MNCC_SETUP_CNF

ti	NUM_1
cause	MNCC_CAUSE_SUCCESS
progress_desc	PROG_NOT_PRES
connected_number	S_CLG_PARTY
connected_number_sub	S_CLG_PARTY_SUB

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_COLP_NUM)
cmd_seq	M_PLUS_COLP_NUM

(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 04.04.00 AK Initial

4.20 Alternate Line Service Tests (ACI400-ACI410)

4.20.1 ACI400: set and query ALS

Description:

Aet and query alternate line service.

Variants: <A>....<B>

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |       (cmd: AT%ALS=)       |                            |
     *==========================> *                            |
(2)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     * <==========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |       (cmd: AT%ALS=)       |                            |
     *==========================> *                            |
(4)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     * <==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_ALS_OFF)	
<A>	cmd_seq	C_PERCENT_ALS_OFF
<B>	cmd_seq	C_PERCENT_ALS_ON
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_ALS_QUERY)	
	cmd_seq	C_PERCENT_ALS_QUERY
(4) ACI_CMD_IND		
	cmd_len	

	NUM_ELEMENTS(M_PERCENT_ALS_OFF)	
<A>	cmd_seq	M_PERCENT_ALS_OFF
<B>	cmd_seq	M_PERCENT_ALS_ON

History: 22.12.98 AK Initial

4.20.2 ACI401: Single Voice Call with ALS selection

Description:

Mobile originated voice call establishment

Variants: <A>....<B>

Preamble:

<A>ACI050A
<B>ACI050F

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |          ACI_CMD_REQ         |                              |
     |        (cmd: AT%ALS=)        |                              |
     *=============================>*                              |
(2)  |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     *<=============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_ALS_QUERY)	
	cmd_seq	C_PERCENT_ALS_QUERY
(2) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PERCENT_ALS_OFF)	
<A>	cmd_seq	M_PERCENT_ALS_OFF
<B>	cmd_seq	M_PERCENT_ALS_ON

History: 22.12.98 AK Initial

4.20.3 ACI402: Second Voice Call with ALS selection

Description:

Second mobile originated voice call establishment during an active MOC.
A: first call ALS=0; second call ALS=0
B: first call ALS=1; second call ALS=1
C: first call ALS=0; second call ALS=1
D: first call ALS=1; second call ALS=0

Variants: <A>....<D>

Preamble:

<A>ACI051A
<B>ACI051B
<C>ACI051C
<D>ACI051D

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |        ACI_CMD_REQ        |                            |
     |      (cmd: AT%ALS=)       |                            |
     *=========================> *                            |
(2)  |        ACI_CMD_IND        |                            |
     |         (msg: OK)         |                            |
     *<========================= *                            |
     |                           |                            |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PERCENT_ALS_QUERY)
		cmd_seq	C_PERCENT_ALS_QUERY
(2)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_ALS_OFF)
	<A>	cmd_seq	M_PERCENT_ALS_OFF
	<B>	cmd_seq	M_PERCENT_ALS_ON
	<C>	cmd_seq	M_PERCENT_ALS_ON
	<D>	cmd_seq	M_PERCENT_ALS_OFF

History: 22.12.98 AK Initial

4.20.4 ACI403: ALS test test command

Description: Test alternate line service.
Variant A: for every SIM-Card
Variant B: for E-Plus SIM-Card
Variants: <A>....<B>

Preamble:

<A>ACI001
<B>ACI024C

```
    APL                          ACI                          PS
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      |       (cmd: %ALS=?)       |                            |
      *==========================>*                            |
(2)   |        ACI_CMD_IND        |                            |
      |      (msg: +ALS: 3)       |                            |
      *<==========================*                            |
(3)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

	Primitive	Parameter	Value
(4)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len NUM_ELEMENTS(C_PERCENT_ALS_T1)	
		cmd_seq	C_PERCENT_ALS_T1
(5)	ACI_CMD_IND		
		cmd_len NUM_ELEMENTS(M_PERCENT_ALS_T1)	
		cmd_seq	M_PERCENT_ALS_T1
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 25.04.02 DPI Initial

/* ALL 500 Tests: NOT TO BE TESTED YET !!!! CPHS (ACI500-ACI550)

4.21 ALL 500 Tests: NOT TO BE TESTED YET !!!! CPHS (ACI500-ACI550)

4.21.1 ACI500: %CPHS - start & refresh, start reading fields

Description:

Start and refresh CPHS module, start reading fields

Variants: <A>....<B>

Preamble:

<A>ACI024A
<B>ACI501A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |        ACI_CMD_REQ          |                             |
     |      (cmd: AT%CPHS=…)       |                             |
     *===========================> *                             |
(2)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(3)  |                             |        SIM_READ_CNF         |
     |                             * <===========================*
(4)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(5)  |                             |        SIM_READ_CNF         |
     |                             * <===========================*
(6)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(7)  |                             |        SIM_READ_CNF         |
     |                             * <===========================*
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPHS_START)	
<B>	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPHS_REFRESH)	
<A>	cmd_seq	C_PERCENT_CPHS_START
<B>	cmd_seq	C_PERCENT_CPHS_REFRESH
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	NOT_PRESENT_8BIT
	max_length	CPHS_CFU_LEN
(3) SIM_READ_CNF		
	datafield	SIM_CPHS_CFF
	cause	SIM_NO_ERROR
	length	CPHS_CFU_LEN
	trans_data	A_CPHS_CFU_FIELD
(4) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	NOT_PRESENT_8BIT
	max_length	CPHS_VWI_LEN
(5) SIM_READ_CNF		
	datafield	SIM_CPHS_VMW
	cause	SIM_NO_ERROR
	length	CPHS_VWI_LEN
	trans_data	A_CPHS_VWI_FIELD

(6) SIM_READ_REQ

	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSTR
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNL

(7) SIM_READ_CNF

	datafield	SIM_CPHS_ONSTR
	cause	SIM_NO_ERROR
	length	CPHS_OPN_LEN
	trans_data	A_CPHS_OPN_FIELD

History:	13.11.2002	KGT	Initial

4.21.2 ACI501: %CPHS - start & refresh, continue with optional fields

Description:

Start CPHS module.

<A> read of SIM_MSISDN (ALS names) fails

<B> read of SIM_CPHS_CSP (Customer service profile), SIM_CPHS_ONSHF (Operator name shortform) and SIM_MSISDN (ALS names) fails

Variants: <A>....<B>

Preamble:

ACI500A

```
    APL                          ACI                         PS
      |                           |                           |
(1)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(2)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(3)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(4)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(5)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(6)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(7)   |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(8)   |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(9)   |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(10)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(11)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(12)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(13)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(14)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(15)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(16)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(17)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(18)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(19)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(20)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(21)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(22)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(23)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(24)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(25)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
(26)  |                           |    SIM_READ_RECORD_CNF    |
      |                           *<==========================*
(27)  |                           |    SIM_READ_RECORD_REQ    |
      |                           *==========================>*
```

```
(28)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(29)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(30)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(31)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(32)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(33)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(34)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(35)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(36)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(37)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(38)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(39)  |                              |     SIM_READ_RECORD_REQ     |
      |                              *===========================> *
(40)  |                              |     SIM_READ_RECORD_CNF     |
      |                              *<=========================== *
(41)  |         ACI_CMD_IND          |                             |
      |          (msg: OK)           |                             |
      *<=========================== *                             |
      |                              |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CINF
	length	NOT_PRESENT_8BIT
	max_length	NUM_3
(2) SIM_READ_CNF		
	datafield	SIM_CPHS_CINF
	cause	SIM_NO_ERROR
	length	CPHS_INF_LEN
<A>	trans_data	A_CPHS_INF_ALL_FIELD
<B>	trans_data	A_CPHS_INF_FIELD
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CSP
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_CSP
(4) SIM_READ_CNF		
	datafield	SIM_CPHS_CSP

<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_CSP_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_CSP_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSHF
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNS
(6) SIM_READ_CNF		
	datafield	SIM_CPHS_ONSHF
<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_OPNS_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_OPNS_FIELD
(7) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(8) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC1_LEN
<B>	length	A_CPHS_MB2_REC1_LEN
<A>	linear_data	A_CPHS_MB1_REC1
<B>	linear_data	A_CPHS_MB2_REC1
(9) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_2
	length	NOT_PRESENT_8BIT
(10) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC2_LEN
<B>	length	A_CPHS_MB2_REC2_LEN
<A>	linear_data	A_CPHS_MB1_REC2
<B>	linear_data	A_CPHS_MB2_REC2
(11) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_3
	length	NOT_PRESENT_8BIT
(12) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_3

	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC3_LEN
<B>	length	A_CPHS_MB2_REC3_LEN
<A>	linear_data	A_CPHS_MB1_REC3
<B>	linear_data	A_CPHS_MB2_REC3
(13) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_4
	length	NOT_PRESENT_8BIT
(14) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_4
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC4_LEN
<B>	length	A_CPHS_MB2_REC4_LEN
<A>	linear_data	A_CPHS_MB1_REC4
<B>	linear_data	A_CPHS_MB2_REC4
(15) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(16) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_12
	length	A_CPHS_INUM_REC1_LEN
	linear_data	A_CPHS_INUM_REC1
(17) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_2
	length	NOT_PRESENT_8BIT
(18) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_12
	length	A_CPHS_INUM_REC2_LEN
	linear_data	A_CPHS_INUM_REC2
(19) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_3
	length	NOT_PRESENT_8BIT
(20) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_3
	max_record	NUM_12

	length	A_CPHS_INUM_REC3_LEN
	linear_data	A_CPHS_INUM_REC3
(21) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_4
	length	NOT_PRESENT_8BIT
(22) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_4
	max_record	NUM_12
	length	A_CPHS_INUM_REC4_LEN
	linear_data	A_CPHS_INUM_REC4
(23) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_5
	length	NOT_PRESENT_8BIT
(24) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_5
	max_record	NUM_12
	length	A_CPHS_INUM_REC5_LEN
	linear_data	A_CPHS_INUM_REC5
(25) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_6
	length	NOT_PRESENT_8BIT
(26) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_6
	max_record	NUM_12
	length	A_CPHS_INUM_REC6_LEN
	linear_data	A_CPHS_INUM_REC6
(27) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_7
	length	NOT_PRESENT_8BIT
(28) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_7
	max_record	NUM_12
	length	A_CPHS_INUM_REC7_LEN
	linear_data	A_CPHS_INUM_REC7

(29) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_8
	length	NOT_PRESENT_8BIT
(30) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_8
	max_record	NUM_12
	length	A_CPHS_INUM_REC8_LEN
	linear_data	A_CPHS_INUM_REC8
(31) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_9
	length	NOT_PRESENT_8BIT
(32) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_9
	max_record	NUM_12
	length	A_CPHS_INUM_REC9_LEN
	linear_data	A_CPHS_INUM_REC9
(33) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_10
	length	NOT_PRESENT_8BIT
(34) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_10
	max_record	NUM_12
	length	A_CPHS_INUM_REC10_LEN
	linear_data	A_CPHS_INUM_REC10
(35) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_11
	length	NOT_PRESENT_8BIT
(36) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_11
	max_record	NUM_12
	length	A_CPHS_INUM_REC11_LEN
	linear_data	A_CPHS_INUM_REC11
(37) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN

	record	NUM_12
	length	NOT_PRESENT_8BIT
(38) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_12
	max_record	NUM_12
	length	A_CPHS_INUM_REC12_LEN
	linear_data	A_CPHS_INUM_REC12
(39) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(40) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_0
	length	NUM_0
	linear_data	A_CPHS_INUM_REC12
(41) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.11.2002 KGT Initial

4.21.3 ACI502: %CPHS - start & refresh, continue with optional fields, MBXN fields do not exist

Description:

Start CPHS module.

<A> read of SIM_MSISDN (ALS names) and SIM_CPHS_MBXN (Mailbox numbers) fails

<B> read of SIM_CPHS_CSP (Customer service profile), SIM_CPHS_ONSHF (Operator name shortform), SIM_MSISDN (ALS names) and SIM_CPHS_MBXN (Mailbox numbers) fails

Variants: <A>....<B>

Preamble:

ACI500A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(2)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(3)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(4)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(5)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(6)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(7)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(8)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(9)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(10) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(11) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(12) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(13) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(14) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(15) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(16) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(17) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(18) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(19) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(20) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(21) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(22) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(23) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(24) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(25) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(26) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(27) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
```

```
(28) |                              |     SIM_READ_RECORD_CNF     |
     |                              *<===========================*
(29) |                              |     SIM_READ_RECORD_REQ     |
     |                              *===========================>*
(30) |                              |     SIM_READ_RECORD_CNF     |
     |                              *<===========================*
(31) |                              |     SIM_READ_RECORD_REQ     |
     |                              *===========================>*
(32) |                              |     SIM_READ_RECORD_CNF     |
     |                              *<===========================*
(33) |                              |     SIM_READ_RECORD_REQ     |
     |                              *===========================>*
(34) |                              |     SIM_READ_RECORD_CNF     |
     |                              *<===========================*
(35) |         ACI_CMD_IND          |                             |
     |          (msg: OK)           |                             |
     *<=============================*                             |
     |                              |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CINF
	length	NOT_PRESENT_8BIT
	max_length	NUM_3
(2) SIM_READ_CNF		
	datafield	SIM_CPHS_CINF
	cause	SIM_NO_ERROR
	length	CPHS_INF_LEN
<A>	trans_data	A_CPHS_INF_ALL_FIELD
<B>	trans_data	A_CPHS_INF_FIELD
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CSP
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_CSP
(4) SIM_READ_CNF		
	datafield	SIM_CPHS_CSP
<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_CSP_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_CSP_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSHF
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNS

(6) SIM_READ_CNF		
	datafield	SIM_CPHS_ONSHF
<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_OPNS_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_OPNS_FIELD
(7) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(8) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_0
	length	NUM_0
	linear_data	A_CPHS_MB1_REC1
(9) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(10) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_12
	length	A_CPHS_INUM_REC1_LEN
	linear_data	A_CPHS_INUM_REC1
(11) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_2
	length	NOT_PRESENT_8BIT
(12) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_12
	length	A_CPHS_INUM_REC2_LEN
	linear_data	A_CPHS_INUM_REC2
(13) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_3
	length	NOT_PRESENT_8BIT
(14) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_3

	max_record	NUM_12
	length	A_CPHS_INUM_REC3_LEN
	linear_data	A_CPHS_INUM_REC3
(15) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_4
	length	NOT_PRESENT_8BIT
(16) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_4
	max_record	NUM_12
	length	A_CPHS_INUM_REC4_LEN
	linear_data	A_CPHS_INUM_REC4
(17) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_5
	length	NOT_PRESENT_8BIT
(18) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_5
	max_record	NUM_12
	length	A_CPHS_INUM_REC5_LEN
	linear_data	A_CPHS_INUM_REC5
(19) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_6
	length	NOT_PRESENT_8BIT
(20) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_6
	max_record	NUM_12
	length	A_CPHS_INUM_REC6_LEN
	linear_data	A_CPHS_INUM_REC6
(21) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_7
	length	NOT_PRESENT_8BIT
(22) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_7
	max_record	NUM_12
	length	A_CPHS_INUM_REC7_LEN
	linear_data	A_CPHS_INUM_REC7

(23) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN
record	NUM_8
length	NOT_PRESENT_8BIT

(24) SIM_READ_RECORD_CNF

datafield	SIM_CPHS_INFN
cause	SIM_NO_ERROR
record	NUM_8
max_record	NUM_12
length	A_CPHS_INUM_REC8_LEN
linear_data	A_CPHS_INUM_REC8

(25) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN
record	NUM_9
length	NOT_PRESENT_8BIT

(26) SIM_READ_RECORD_CNF

datafield	SIM_CPHS_INFN
cause	SIM_NO_ERROR
record	NUM_9
max_record	NUM_12
length	A_CPHS_INUM_REC9_LEN
linear_data	A_CPHS_INUM_REC9

(27) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN
record	NUM_10
length	NOT_PRESENT_8BIT

(28) SIM_READ_RECORD_CNF

datafield	SIM_CPHS_INFN
cause	SIM_NO_ERROR
record	NUM_10
max_record	NUM_12
length	A_CPHS_INUM_REC10_LEN
linear_data	A_CPHS_INUM_REC10

(29) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN
record	NUM_11
length	NOT_PRESENT_8BIT

(30) SIM_READ_RECORD_CNF

datafield	SIM_CPHS_INFN
cause	SIM_NO_ERROR
record	NUM_11
max_record	NUM_12
length	A_CPHS_INUM_REC11_LEN
linear_data	A_CPHS_INUM_REC11

(31) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN

	record	NUM_12
	length	NOT_PRESENT_8BIT
(32) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_NO_ERROR
	record	NUM_12
	max_record	NUM_12
	length	A_CPHS_INUM_REC12_LEN
	linear_data	A_CPHS_INUM_REC12
(33) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(34) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_0
	length	NUM_0
	linear_data	A_CPHS_INUM_REC12
(35) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 17.04.2003 TLU Initial

4.21.4 ACI503: %CPHS - start & refresh, continue with optional fields

Description:

Start CPHS module.

<A> read of SIM_CPHS_INFN (Info. Numbers) and SIM_CPHS_INFN2 (Info. Numbers) fails

<B> read of SIM_CPHS_CSP (Customer service profile), SIM_CPHS_ONSHF (Operator name shortform), SIM_CPHS_INFN (Info. Numbers) and SIM_CPHS_INFN2 (Info. Numbers) fails

Variants: <A>....<B>

Preamble:

ACI500A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(2)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(3)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(4)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(5)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(6)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(7)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(8)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(9)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(10) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(11) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(12) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(13) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(14) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(15) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(16) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(17) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(18) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(19) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(20) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(21) |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(22) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(23) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CINF
	length	NOT_PRESENT_8BIT
	max_length	NUM_3
(2) SIM_READ_CNF		
	datafield	SIM_CPHS_CINF
	cause	SIM_NO_ERROR
	length	CPHS_INF_LEN
<A>	trans_data	A_CPHS_INF_ALL_FIELD
<B>	trans_data	A_CPHS_INF_FIELD
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CSP
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_CSP
(4) SIM_READ_CNF		
	datafield	SIM_CPHS_CSP
<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_CSP_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_CSP_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSHF
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNS
(6) SIM_READ_CNF		
	datafield	SIM_CPHS_ONSHF
<A>	cause	SIM_NO_ERROR
<B>	cause	SIM_CAUSE_EF_INVALID
<A>	length	CPHS_OPNS_LEN
<B>	length	NUM_0
	trans_data	A_CPHS_OPNS_FIELD
(7) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(8) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC1_LEN
<B>	length	A_CPHS_MB2_REC1_LEN
<A>	linear_data	A_CPHS_MB1_REC1
<B>	linear_data	A_CPHS_MB2_REC1

(9) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_2
	length	NOT_PRESENT_8BIT
(10) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC2_LEN
<B>	length	A_CPHS_MB2_REC2_LEN
<A>	linear_data	A_CPHS_MB1_REC2
<B>	linear_data	A_CPHS_MB2_REC2
(11) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_3
	length	NOT_PRESENT_8BIT
(12) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_3
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC3_LEN
<B>	length	A_CPHS_MB2_REC3_LEN
<A>	linear_data	A_CPHS_MB1_REC3
<B>	linear_data	A_CPHS_MB2_REC3
(13) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_4
	length	NOT_PRESENT_8BIT
(14) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_NO_ERROR
	record	NUM_4
	max_record	NUM_4
<A>	length	A_CPHS_MB1_REC4_LEN
<B>	length	A_CPHS_MB2_REC4_LEN
<A>	linear_data	A_CPHS_MB1_REC4
<B>	linear_data	A_CPHS_MB2_REC4
(15) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(16) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_0
	length	NUM_0
	linear_data	A_CPHS_INUM_REC1

(17) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_CPHS_INFN2
record	NUM_1
length	NOT_PRESENT_8BIT

(18) SIM_READ_RECORD_CNF

datafield	SIM_CPHS_INFN2
cause	SIM_CAUSE_EF_INVALID
record	NUM_1
max_record	NUM_0
length	NUM_0
linear_data	A_CPHS_INUM_REC2

(19) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_MSISDN
record	NUM_1
length	NOT_PRESENT_8BIT

(20) SIM_READ_RECORD_CNF

datafield	SIM_MSISDN
cause	SIM_NO_ERROR
record	NUM_1
max_record	NUM_2
length	LDATA_MSISDN
linear_data	DATA_MSISDN

(21) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_MSISDN
record	NUM_2
length	NOT_PRESENT_8BIT

(22) SIM_READ_RECORD_CNF

datafield	SIM_MSISDN
cause	SIM_NO_ERROR
record	NUM_2
max_record	NUM_2
length	LDATA_MSISDN
linear_data	DATA_MSISDN2

(23) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	22.04.2003	TLU	Initial

4.21.5 ACI504: %CPHS - Stop

Description:

Stop CPHS module.

Preamble:

ACI501A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT%CPHS=0)       |                             |
     *===========================> *                             |
(2)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPHS_STOP)	
	cmd_seq	C_PERCENT_CPHS_STOP
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.11.2002 KGT Initial

4.21.6 ACI505: %CPHS - Query

Description:

Query Initialization state of CPHS module.
A: CPHS is initialized
B: CPHS is deinitialized
C: CPHS initialization failed

Variants: <A>....<C>

Preamble:

<A>ACI501A
<B>ACI504
<C>ACI553

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |       (cmd: AT%CPHS?)       |                             |
     *===========================> *                             |
(2)  |         ACI_CMD_IND         |                             |
     |        (msg: %CPHS:…)       |                             |
     * <===========================*                             |
(3)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPHS_QUERY)
	cmd_seq	C_PERCENT_CPHS_QUERY
(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPHS_ON)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPHS_OFF)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPHS_OFF)
<A>	cmd_seq	M_PERCENT_CPHS_ON
<B>	cmd_seq	M_PERCENT_CPHS_OFF
<C>	cmd_seq	M_PERCENT_CPHS_OFF
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.11.2002 KGT Initial

4.21.7 ACI506: %CPHS - Test

Description:

Test command for Initialization state of CPHS module.

Preamble:

ACI501A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT%CPHS=?)     |                            |
     *==========================> *                            |
(2)  |         ACI_CMD_IND        |                            |
     |        (msg: %CPHS:…)      |                            |
     *<========================== *                            |
(3)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPHS_TEST)
	cmd_seq	C_PERCENT_CPHS_TEST
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPHS_TEST)
	cmd_seq	M_PERCENT_CPHS_TEST
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.11.2002 KGT Initial

4.21.8 ACI510: %CPOPN - Query

Description:

Query long and short names of operator as stored on the corresponding SIM fields.

Variants: <A>....<B>

Preamble:

<A>ACI501A
<B>ACI501B

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT%CPOPN?)      |                            |
     *==========================> *                            |
(2)  |        ACI_CMD_IND         |                            |
     |      (msg: %CPOPN:…)       |                            |
     * <==========================*                            |
(3)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     * <==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPOPN)
	cmd_seq	C_PERCENT_CPOPN
(2) ACI_CMD_IND		
<A>	cmd_len	

	NUM_ELEMENTS(M_PERCENT_CPOPN_LS)	
<B>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPOPN_L)	
<A>	cmd_seq	M_PERCENT_CPOPN_LS
<B>	cmd_seq	M_PERCENT_CPOPN_L
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 14.11.2002 KGT Initial

4.21.9 ACI512: %CPROAM - Indication (for GSM)

Description:

%CPROAM is an unsolicited indication that will inform the user when the mobile gets in the roaming status.

Variants: <A>....<B>

Preamble:

ACI501A

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: +COPS=0,0)     |                           |
     *=========================> *                           |
(2)  |                           |     MMR_PLMN_MODE_REQ     |
     |                           *=========================> *
(3)  |                           |        MMR_REG_REQ        |
     |                           *=========================> *
(4)  |                           |        MMR_REG_CNF        |
     |                           *<========================= *
(4)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<========================= *                           |
(5)  |        ACI_CMD_IND        |                           |
     |       (msg: %CPROAM)      |                           |
     *<========================= *                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_COPS_REG)	
	cmd_seq	C_PLUS_COPS_REG
(2) MMR_PLMN_MODE_REQ		
	mode	MODE_AUTO

Primitive	Parameter	Value
(3) MMR_REG_REQ		
	service_mode	SERVICE_MODE_FULL
(4) MMR_REG_CNF		
	plmn	S_PLMN_262_01
	lac	NUM_4800
	cid	NUM_1000
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(6) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPROAM)	
	cmd_seq	M_PERCENT_CPROAM

History: 14.11.2002 KGT Initial

4.21.10 ACI515: %CPVWI - Indication

Description:

%CPVWI is an unsolicited indication send to the user upon receiving a Voice Message Waiting SMS from the network.
<A> for line 1 with indication for set
<B> for line 2 with indication for set, after line 1 with indication for set received
<C> for line 1 with indication for clear

Variants: <A>....<C>

Preamble:

<A>ACI501A
<B>ACI515A
<C>ACI501A

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |                              |     MNSMS_MESSAGE_IND        |
      |                              *<============================*
(1)   |                              |       SIM_UPDATE_REQ         |
      |                              *============================>*
(2)   |                              |       SIM_UPDATE_CNF         |
      |                              *<============================*
(2)   |          ACI_CMD_IND         |                              |
      |        (msg: %CPVWI:…)       |                              |
      *<============================*                              |
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) MNSMS_MESSAGE_IND		
	mem_type	MEM_SM
	rec_num	REC_NUM_0

	rec_max	REC_NUM_MAX
	status	SMS_RECORD_REC_UNREAD
<A>	sms_sdu	DELIVER_01
<B>	sms_sdu	DELIVER_02
<C>	sms_sdu	DELIVER_01_CLEAR
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	CPHS_VWI_LEN
<A>	trans_data	A_CPHS_VWI_FIELD_LINE1
<B>	trans_data	A_CPHS_VWI_FIELD_L1L2
<C>	trans_data	A_CPHS_VWI_FIELD
(3) SIM_UPDATE_CNF	datafield	SIM_CPHS_VMW
	cause	SIM_NO_ERROR
(1) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L2)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG_L1)
<A>	cmd_seq	M_PERCENT_CPVWI_MSG_L1
<B>	cmd_seq	M_PERCENT_CPVWI_MSG_L2
<C>	cmd_seq	M_PERCENT_CPVWI_NOMSG_L1

History: 14.11.2002 KGT Initial

4.21.11 ACI516: %CPVWI - Clear & Set

Description:

Clear or set current setting for voice waiting message flag for each line.

Variants: <A>....<G>

Preamble:

<A>ACI515A
<B>ACI515B
<C>ACI515B
<D>ACI516E
<E>ACI501A
<F>ACI501A
<G>ACI501A

```
    APL                         ACI                          PS
      |                           |                           |
(3)   |       ACI_CMD_REQ         |                           |
      |    (cmd: AT%CPVWI=0…)     |                           |
      *==========================>*                           |
(4)   |                           |      SIM_UPDATE_REQ       |
      |                           *==========================>*
(5)   |                           |      SIM_UPDATE_CNF       |
      |                           *<==========================*
(6)   |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_ALL)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_ALL)
<C>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_L1)
<D>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_L2)
<E>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_ALL)
<F>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_L1)
<G>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_L2)
<A>	cmd_seq	C_PERCENT_CPVWI_CLEAR_ALL
<B>	cmd_seq	C_PERCENT_CPVWI_CLEAR_ALL
<C>	cmd_seq	C_PERCENT_CPVWI_CLEAR_L1
<D>	cmd_seq	C_PERCENT_CPVWI_CLEAR_L2
<E>	cmd_seq	C_PERCENT_CPVWI_SET_ALL
<F>	cmd_seq	C_PERCENT_CPVWI_SET_L1
<G>	cmd_seq	C_PERCENT_CPVWI_SET_L2
(5) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	CPHS_VWI_LEN
<A>	trans_data	A_CPHS_VWI_FIELD
<B>	trans_data	A_CPHS_VWI_FIELD
<C>	trans_data	A_CPHS_VWI_FIELD_LINE2
<D>	trans_data	A_CPHS_VWI_FIELD_NOLINE2
<E>	trans_data	A_CPHS_VWI_FIELD_ALL
<F>	trans_data	A_CPHS_VWI_FIELD_LINE1
<G>	trans_data	A_CPHS_VWI_FIELD_LINE2
(6) SIM_UPDATE_CNF	datafield	SIM_CPHS_VMW
	cause	SIM_NO_ERROR
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 14.11.2002 KGT Initial

4.21.12 ACI517: %CPVWI - Query

Description:

Query current setting for voice waiting message flag for each line.

Variants: <A>....<J>

Preamble:

<A>ACI501A
<B>ACI515A
<C>ACI515B
<D>ACI516A
<E>ACI516B
<F>ACI516C
<G>ACI516D
<H>ACI516E
<I>ACI516F
<J>ACI516G

```
    APL                        ACI                          PS
     |                          |                           |
(1)  |        ACI_CMD_REQ       |                           |
     |     (cmd: AT%CPVWI=2)    |                           |
     *==========================>*                          |
(2)  |        ACI_CMD_IND       |                           |
     |      (msg: %CPVWI:…)     |                           |
     *<==========================*                          |
(3)  |        ACI_CMD_IND       |                           |
     |         (msg: OK)        |                           |
     *<==========================*                          |
     |                          |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_QUERY_ALL)
	cmd_seq	C_PERCENT_CPVWI_QUERY_ALL
(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1L2)
<D>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG)
<E>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG)
<F>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L2)
<G>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1FD)
<H>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1L2FD)
<I>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1)
<J>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L2)
<A>	cmd_seq	M_PERCENT_CPVWI_NOMSG

<B>	cmd_seq	M_PERCENT_CPVWI_MSG_L1
<C>	cmd_seq	M_PERCENT_CPVWI_MSG_L1L2
<D>	cmd_seq	M_PERCENT_CPVWI_NOMSG
<E>	cmd_seq	M_PERCENT_CPVWI_NOMSG
<F>	cmd_seq	M_PERCENT_CPVWI_MSG_L2
<G>	cmd_seq	M_PERCENT_CPVWI_MSG_L1FD
<H>	cmd_seq	M_PERCENT_CPVWI_MSG_L1L2FD
<I>	cmd_seq	M_PERCENT_CPVWI_MSG_L1
<J>	cmd_seq	M_PERCENT_CPVWI_MSG_L2
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 14.11.2002 KGT Initial

4.21.13 ACI518: %CPVWI - Test

Description:

Query current setting for voice waiting message flag for each line.

Preamble:

ACI501A

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |      (cmd: AT%CPVWI=?)       |                              |
     *=============================>*                              |
(2)  |         ACI_CMD_IND          |                              |
     |       (msg: %CPVWI:…)        |                              |
     *<=============================*                              |
(3)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<=============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_TEST)
	cmd_seq	C_PERCENT_CPVWI_TEST
(2) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PERCENT_CPVWI_TEST)	
	cmd_seq	M_PERCENT_CPVWI_TEST
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 14.11.2002 KGT Initial

4.21.14 ACI519: %CPCFU - Clear & Set

Description:

Clear or set current setting for call forwarding unconditional flag for each line.

Variants: <A>....<F>

Preamble:

<A>ACI519D
<B>ACI519D
<C>ACI519D
<D>ACI501A
<E>ACI501A
<F>ACI501A

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |         ACI_CMD_REQ        |                            |
      |   (cmd: AT%CPCFU=0|1,…)    |                            |
      *==========================> *                            |
(2)   |                            |       SIM_UPDATE_REQ       |
      |                            *==========================> *
(3)   |                            |       SIM_UPDATE_CNF       |
      |                            *<========================== *
(4)   |         ACI_CMD_IND        |                            |
      |          (msg: OK)         |                            |
      *<========================== *                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_CLEAR_ALL)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_CLEAR_L1)
<C>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_CLEAR_L2)
<D>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_SET_ALL)
<E>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_SET_L1)
<F>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_SET_L2)
<A>	cmd_seq	C_PERCENT_CPCFU_CLEAR_ALL
<B>	cmd_seq	C_PERCENT_CPCFU_CLEAR_L1
<C>	cmd_seq	C_PERCENT_CPCFU_CLEAR_L2
<D>	cmd_seq	C_PERCENT_CPCFU_SET_ALL
<E>	cmd_seq	C_PERCENT_CPCFU_SET_L1
<F>	cmd_seq	C_PERCENT_CPCFU_SET_L2
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	CPHS_CFU_LEN

<A>	trans_data	A_CPHS_CFU_FIELD
<B>	trans_data	A_CPHS_CFU_FIELD_NOLINE1
<C>	trans_data	A_CPHS_CFU_FIELD_NOLINE2
<D>	trans_data	A_CPHS_CFU_FIELD_ALL
<E>	trans_data	A_CPHS_CFU_FIELD_LINE1
<F>	trans_data	A_CPHS_CFU_FIELD_LINE2
(3) SIM_UPDATE_CNF	datafield	SIM_CPHS_CFF
	cause	SIM_NO_ERROR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.04.2003 TLU Initial

4.21.15 ACI520: %CPCFU - Query

Description:

Query current setting for call forwarding unconditional flag for each line.

Variants: <A>....<G>

Preamble:

<A>ACI519A
<B>ACI519B
<C>ACI519C
<D>ACI519D
<E>ACI519E
<F>ACI519F
<G>ACI501A

```
    APL                            ACI                           PS
     |                              |                             |
(1)  |         ACI_CMD_REQ          |                             |
     |     (cmd: AT%CPCFU=2,..)     |                             |
     *============================> *                             |
(2)  |         ACI_CMD_IND          |                             |
     |       (msg: %CPCFU:…)        |                             |
     *<============================ *                             |
(3)  |         ACI_CMD_IND          |                             |
     |          (msg: OK)           |                             |
     *<============================ *                             |
     |                              |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_QUERY_ALL)
	cmd_seq	C_PERCENT_CPCFU_QUERY_ALL

(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_NOFLG)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L2FD)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L1FD)
<D>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L1L2FD)
<E>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L1)
<F>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L2)
<G>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_NOFLG)
<A>	cmd_seq	M_PERCENT_CPCFU_NOFLG
<B>	cmd_seq	M_PERCENT_CPCFU_FLG_L2FD
<C>	cmd_seq	M_PERCENT_CPCFU_FLG_L1FD
<D>	cmd_seq	M_PERCENT_CPCFU_FLG_L1L2FD
<E>	cmd_seq	M_PERCENT_CPCFU_FLG_L1
<F>	cmd_seq	M_PERCENT_CPCFU_FLG_L2
<G>	cmd_seq	M_PERCENT_CPCFU_NOFLG
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.04.2003 TLU Initial

4.21.16 ACI521: %CPCFU - Test

Description:

Test command for for call forwarding unconditional flag.

Preamble:

ACI501A

```
     APL                          ACI                          PS
      |                            |                            |
(4)   |        ACI_CMD_REQ         |                            |
      |     (cmd: AT%CPCFU=?)      |                            |
      *===========================>*                            |
(5)   |        ACI_CMD_IND         |                            |
      |      (msg: %CPCFU:…)       |                            |
      *<===========================*                            |
(6)   |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_TEST)
	cmd_seq	C_PERCENT_CPCFU_TEST
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_TEST)
	cmd_seq	M_PERCENT_CPCFU_TEST

(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 29.04.2003 TLU Initial

4.21.17 ACI525: %CPALS - Query related to current call

Description:

Query lines with their MSISDN identification if available.
(new testcases 050G and 051E added to be able to test this)

Variants: <A>....<B>

Preamble:

<A>ACI050G
<B>ACI051E

```
     APL                          ACI                           PS
      |                            |                             |
(1)   |        ACI_CMD_REQ         |                             |
      |      (cmd: AT%CPALS?)      |                             |
      *===========================>*                             |
(2)   |        ACI_CMD_IND         |                             |
      |      (msg: %CPALS:…)       |                             |
      *<===========================*                             |
(3)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_QUERY)
	cmd_seq	C_PERCENT_CPALS_QUERY
(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPALS_L1)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPALS_L256)
<A>	cmd_seq	M_PERCENT_CPALS_L1
<B>	cmd_seq	M_PERCENT_CPALS_L256
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.21.18 ACI526: %CPALS - Query line related to call id

Description:

Query lines with their MSISDN identification if available.
(new testcases 050G and 051E added to be able to test this)

Variants: <A>....<B>

Preamble:

<A>ACI050G
<B>ACI051E

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |        ACI_CMD_REQ         |                             |
     |     (cmd: AT%CPALS=…)      |                             |
     *==========================> *                             |
(2)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPALS:…)       |                             |
     *<========================== *                             |
(3)  |        ACI_CMD_IND         |                             |
     |         (msg: OK)          |                             |
     *<========================== *                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_SET_ID1)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_SET_ID2)
<A>	cmd_seq	C_PERCENT_CPALS_SET_ID1
<B>	cmd_seq	C_PERCENT_CPALS_SET_ID2
(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPALS_L1)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPALS_L256)
<A>	cmd_seq	M_PERCENT_CPALS_L1
<B>	cmd_seq	M_PERCENT_CPALS_L256
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.21.19 ACI527: %CPALS - Query current active line (no call)

Description:

Query the current active line that was set by AT%ALS.

Preamble:

ACI503A

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT%ALS=1)       |                            |
     *===========================>*                            |
(2)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |     (cmd: AT%CPALS?)       |                            |
     *===========================>*                            |
(4)  |        ACI_CMD_IND         |                            |
     |      (msg: %CPALS:…)       |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_ALS_ON)
	cmd_seq	C_PERCENT_ALS_ON
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_QUERY)
	cmd_seq	C_PERCENT_CPALS_QUERY
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPALS_L256_SIM)
	cmd_seq	M_PERCENT_CPALS_L256_SIM
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 23.04.2003 TLU Initial

4.21.20 ACI528: %CPALS - Test

Description:
Test command for ALS

Preamble:
ACI501A

```
    APL                            ACI                           PS
     |                              |                             |
(1)  |          ACI_CMD_REQ         |                             |
     |      (cmd: AT%CPALS=?)       |                             |
     *=============================>*                             |
(2)  |          ACI_CMD_IND         |                             |
     |           (msg: OK)          |                             |
     *<=============================*                             |
     |                              |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_TEST)
	cmd_seq	C_PERCENT_CPALS_TEST
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.21 ACI530: %CPINF - Query

Description:
Query CPHS information field

Variants: <A>....<B>

Preamble:
<A>ACI501A
<B>ACI501B

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |         ACI_CMD_REQ        |                            |
      |       (cmd: AT%CPINF?)     |                            |
      *==========================>*                            |
(2)   |         ACI_CMD_IND        |                            |
      |        (msg: %CPINF:…)     |                            |
      *<==========================*                            |
(3)   |         ACI_CMD_IND        |                            |
      |          (msg: OK)         |                            |
      *<==========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPINF)
	cmd_seq	C_PERCENT_CPINF
(2) ACI_CMD_IND		
<A>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPINF_1)	
<B>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPINF_2)	
<A>	cmd_seq	M_PERCENT_CPINF_1
<B>	cmd_seq	M_PERCENT_CPINF_2
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.22 ACI535: %CPMB - Test

Description:

Query record numbers of CPHS mailboxnumbers

Preamble:

<A>ACI501A

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |          ACI_CMD_REQ         |                              |
     |       (cmd: AT%CPMB=?)       |                              |
     *============================> *                              |
(2)  |          ACI_CMD_IND         |                              |
     |        (msg: %CPMB:…)        |                              |
     *<============================ *                              |
(3)  |          ACI_CMD_IND         |                              |
     |           (msg: OK)          |                              |
     *<============================ *                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPMB_TEST)
	cmd_seq	C_PERCENT_CPMB_TEST
(1) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPMB_TEST)
	cmd_seq	M_PERCENT_CPMB_TEST
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.23 ACI536: %CPMB - Query mailbox numbers

Description:

Query mailboxnumbers

Variants: <A>....<C>

Preamble:

<A> ACI530A
<B> ACI530A
<C> ACI501B

```
         APL                             ACI                             PS
          |                               |                               |
(1)       |          ACI_CMD_REQ          |                               |
          |       (cmd: AT%CPMB=…)        |                               |
          *==============================>*                               |
(2)       |          ACI_CMD_IND          |                               |
          |        (msg: %CPMB:…)         |                               |
          *<==============================*                               |
(3)       |          ACI_CMD_IND          |                               |
          |           (msg: OK)           |                               |
          *<==============================*                               |
          |                               |                               |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPMB_3)	
<B>	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPMB_1)	
<C>	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPMB_1)	
<A>	cmd_seq	C_PERCENT_CPMB_3
<B>	cmd_seq	C_PERCENT_CPMB_1
<C>	cmd_seq	C_PERCENT_CPMB_1
(2) ACI_CMD_IND		
<A>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPMB_3)	
<B>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPMB_1)	
<C>	cmd_len	
	NUM_ELEMENTS(M_PERCENT_CPMB2_1)	
<A>	cmd_seq	M_PERCENT_CPMB_3
<B>	cmd_seq	M_PERCENT_CPMB_1
<C>	cmd_seq	M_PERCENT_CPMB2_1
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.24 ACI537: %CPMB - Query empty mailbox numbers

Description:

Query mailboxnumbers. Mailbox numbers are empty.

Variants: <A>....<C>

Preamble:

ACI501B

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |         ACI_CMD_REQ        |                             |
     |      (cmd: AT%CPMB=…)      |                             |
     *===========================>*                             |
(2)  |         ACI_CMD_IND        |                             |
     |          (msg: OK)         |                             |
     *<===========================*                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len NUM_ELEMENTS(C_PERCENT_CPMB_2)	
<B>	cmd_len NUM_ELEMENTS(C_PERCENT_CPMB_3)	
<C>	cmd_len NUM_ELEMENTS(C_PERCENT_CPMB_4)	
<A>	cmd_seq	C_PERCENT_CPMB_2
<B>	cmd_seq	C_PERCENT_CPMB_3
<C>	cmd_seq	C_PERCENT_CPMB_4
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 23.1.2003 KGT Initial

4.21.25 ACI538: %CPMB - Query mailbox numbers, but no mailbox numbers cached

Description:

Query mailboxnumbers

Preamble:

ACI502B

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |         ACI_CMD_REQ        |                             |
     |      (cmd: AT%CPMB=…)      |                             |
     *===========================>*                             |
(2)  |         ACI_CMD_IND        |                             |
     |          (msg: OK)         |                             |
     *<===========================*                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPMB_1)	
	cmd_seq	C_PERCENT_CPMB_1
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.26 ACI540: %CPNUMS - Test

Description:

Query hole table of information numbers

Preamble:

ACI501A

```
    APL                          ACI                           PS
     |                            |                             |
(1)  |        ACI_CMD_REQ         |                             |
     |     (cmd: AT%CPNUMS=?)     |                             |
     *===========================>*                             |
(2)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(3)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(4)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(5)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(6)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(7)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(8)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(9)  |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(10) |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(11) |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(12) |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(13) |        ACI_CMD_IND         |                             |
     |      (msg: %CPNUMS:…)      |                             |
     *<===========================*                             |
(14) |        ACI_CMD_IND         |                             |
     |         (msg: OK)          |                             |
     *<===========================*                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_CPNUMS_TEST)	
	cmd_seq	C_PERCENT_CPNUMS_TEST

(2) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_1)
cmd_seq	M_PERCENT_CPNUMS_1

(3) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_2)
cmd_seq	M_PERCENT_CPNUMS_2

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_3)
cmd_seq	M_PERCENT_CPNUMS_3

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_4)
cmd_seq	M_PERCENT_CPNUMS_4

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_5)
cmd_seq	M_PERCENT_CPNUMS_5

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_6)
cmd_seq	M_PERCENT_CPNUMS_6

(8) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_7)
cmd_seq	M_PERCENT_CPNUMS_7

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_8)
cmd_seq	M_PERCENT_CPNUMS_8

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_9)
cmd_seq	M_PERCENT_CPNUMS_9

(11) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_10)
cmd_seq	M_PERCENT_CPNUMS_10

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_11)
cmd_seq	M_PERCENT_CPNUMS_11

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_12)
cmd_seq	M_PERCENT_CPNUMS_12

(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.27 ACI541: %CPNUMS - explore elements

Description:

Explore elements of information numbers

Preamble:

ACI540

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |         ACI_CMD_REQ        |                            |
      |    (cmd: AT%CPNUMS=…,1)    |                            |
      *==========================> *                            |
(2)   |         ACI_CMD_IND        |                            |
      |       (msg: %CPNUMS:…)     |                            |
      * <========================= *                            |
(3)   |         ACI_CMD_IND        |                            |
      |       (msg: %CPNUMS:…)     |                            |
      * <========================= *                            |
(4)   |         ACI_CMD_IND        |                            |
      |          (msg: OK)         |                            |
      * <========================= *                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_CPNUMS_EXP_8)	
	cmd_seq	C_PERCENT_CPNUMS_EXP_8
(2) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PERCENT_CPNUMS_9)	
	cmd_seq	M_PERCENT_CPNUMS_9
(3) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PERCENT_CPNUMS_10)	
	cmd_seq	M_PERCENT_CPNUMS_10
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.21.28 ACI542: %CPNUMS - explore elements

Description:

Explore elements of information numbers

Preamble:

ACI540

```
    APL                             ACI                            PS
     |                               |                              |
(1)  |          ACI_CMD_REQ          |                              |
     |    (cmd: AT%CPNUMS=…,1)       |                              |
     *===========================>*                              |
(2)  |          ACI_CMD_IND          |                              |
     |       (msg: %CPNUMS:…)        |                              |
     *<===========================*                              |
(3)  |          ACI_CMD_IND          |                              |
     |       (msg: %CPNUMS:…)        |                              |
     *<===========================*                              |
(4)  |          ACI_CMD_IND          |                              |
     |       (msg: %CPNUMS:…)        |                              |
     *<===========================*                              |
(5)  |          ACI_CMD_IND          |                              |
     |           (msg: OK)           |                              |
     *<===========================*                              |
     |                               |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPNUMS_EXP_0)
	cmd_seq	C_PERCENT_CPNUMS_EXP_0
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_1)
	cmd_seq	M_PERCENT_CPNUMS_1
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_8)
	cmd_seq	M_PERCENT_CPNUMS_8
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_11)
	cmd_seq	M_PERCENT_CPNUMS_11

Primitive	Parameter	Value
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.29 ACI543: %CPNUMS - query elements

Description:

Query elements of information numbers

Preamble:

ACI540

```
    APL                           ACI                            PS
     |                             |                              |
(1)  |         ACI_CMD_REQ         |                              |
     |    (cmd: AT%CPNUMS=…,2)     |                              |
     *===========================>*                              |
(2)  |         ACI_CMD_IND         |                              |
     |       (msg: %CPNUMS:…)      |                              |
     *<===========================*                              |
(3)  |         ACI_CMD_IND         |                              |
     |          (msg: OK)          |                              |
     *<===========================*                              |
     |                             |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPNUMS_ELM_9)
	cmd_seq	C_PERCENT_CPNUMS_ELM_9
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_CPNUMS_9)
	cmd_seq	M_PERCENT_CPNUMS_9
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.30 ACI544: %CPNUMS - explore elements, but no elements cached

Description:

Explore elements of information numbers. But no information numbers on SIM

Preamble:

ACI503A

```
    APL                        ACI                        PS
     |                          |                          |
(1)  |        ACI_CMD_REQ       |                          |
     |    (cmd: AT%CPNUMS=…,1)  |                          |
     *=========================>*                          |
(2)  |        ACI_CMD_IND       |                          |
     |         (msg: OK)        |                          |
     *<=========================*                          |
     |                          |                          |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPNUMS_EXP_0)
	cmd_seq	C_PERCENT_CPNUMS_EXP_0
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 15.11.2002 KGT Initial

4.21.31 ACI550: %CPHS - start, SIM error for mandatory field SIM_CPHS_CCF

Description:

Start CPHS module. SIM returns error on reading a mandatory field SIM_CPHS_CCF.

Preamble:

ACI024A

```
       APL                          ACI                          PS
        |                            |                            |
(8)     |         ACI_CMD_REQ        |                            |
        |      (cmd: AT%CPHS=…)      |                            |
        *==========================> *                            |
(9)     |                            |        SIM_READ_REQ        |
        |                            *==========================> *
(10)    |                            |        SIM_READ_CNF        |
        |                            *<========================== *
(4)     |         ACI_CMD_IND        |                            |
        |        (msg: ERROR)        |                            |
        *<========================== *                            |
        |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(8) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_CPHS_START)	
	cmd_seq	C_PERCENT_CPHS_START
(9) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	NOT_PRESENT_8BIT
	max_length	CPHS_CFU_LEN
(10) SIM_READ_CNF		
	datafield	SIM_CPHS_CFF
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_CFU_FIELD
(4) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 7.01.2003 KGT Initial

4.21.32 ACI551: %CPHS - start, SIM error for mandatory field SIM_CPHS_VMW

Description:

Start CPHS module. SIM returns error on reading a mandatory field SIM_CPHS_VMW.

Preamble:

ACI024A

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: AT%CPHS=…)     |                           |
     *==========================>*                           |
(2)  |                           |       SIM_READ_REQ        |
     |                           *==========================>*
(3)  |                           |       SIM_READ_CNF        |
     |                           *<==========================*
(4)  |                           |       SIM_READ_REQ        |
     |                           *==========================>*
(5)  |                           |       SIM_READ_CNF        |
     |                           *<==========================*
(5)  |        ACI_CMD_IND        |                           |
     |        (msg: ERROR)       |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPHS_START)
	cmd_seq	C_PERCENT_CPHS_START
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	NOT_PRESENT_8BIT
	max_length	CPHS_CFU_LEN
(3) SIM_READ_CNF		
	datafield	SIM_CPHS_CFF
	cause	SIM_NO_ERROR
	length	CPHS_CFU_LEN
	trans_data	A_CPHS_CFU_FIELD
(4) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	NOT_PRESENT_8BIT
	max_length	CPHS_VWI_LEN
(5) SIM_READ_CNF		
	datafield	SIM_CPHS_VMW
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_VWI_FIELD
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_UNKNOWN)
	cmd_seq	M_ERR_UNKNOWN

4.21.33 ACI552: %CPHS - start, SIM error for mandatory field SIM_CPHS_ONSTR

Description:

Start CPHS module. SIM returns error on reading a mandatory field SIM_CPHS_ONSTR.

Preamble:

ACI024A

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |       (cmd: AT%CPHS=…)      |                             |
     *===========================> *                             |
(2)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(3)  |                             |        SIM_READ_CNF         |
     |                             *<=========================== *
(4)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(5)  |                             |        SIM_READ_CNF         |
     |                             *<=========================== *
(6)  |                             |        SIM_READ_REQ         |
     |                             *===========================> *
(7)  |                             |        SIM_READ_CNF         |
     |                             *<=========================== *
(6)  |         ACI_CMD_IND         |                             |
     |        (msg: ERROR)         |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPHS_START)	
	cmd_seq	C_PERCENT_CPHS_START
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	NOT_PRESENT_8BIT
	max_length	CPHS_CFU_LEN
(3) SIM_READ_CNF		
	datafield	SIM_CPHS_CFF
	cause	SIM_NO_ERROR
	length	CPHS_CFU_LEN
	trans_data	A_CPHS_CFU_FIELD

(4) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	NOT_PRESENT_8BIT
	max_length	CPHS_VWI_LEN
(5) SIM_READ_CNF		
	datafield	SIM_CPHS_VMW
	cause	SIM_NO_ERROR
	length	CPHS_VWI_LEN
	trans_data	A_CPHS_VWI_FIELD
(6) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSTR
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNL
(7) SIM_READ_CNF		
	datafield	SIM_CPHS_ONSTR
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_OPN_FIELD
(6) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 7.01.2003 KGT Initial

4.21.34 ACI553: %CPHS - start, SIM error for mandatory field SIM_CPHS_CINF

Description:

Start CPHS module. SIM returns error on reading a mandatory field SIM_CPHS_CINF.

Preamble:

ACI500A

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |                           |        SIM_READ_REQ       |
     |                           *==========================>*
(2)  |                           |        SIM_READ_CNF       |
     |                           *<==========================*
(3)  |        ACI_CMD_IND        |                           |
     |        (msg: ERROR)       |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value

(1) SIM_READ_REQ

	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CINF
	length	NOT_PRESENT_8BIT
	max_length	NUM_3

(2) SIM_READ_CNF

	datafield	SIM_CPHS_CINF
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_INF_FIELD

(3) ACI_CMD_IND

	cmd_len NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 13.11.2002 KGT Initial

4.21.35 ACI555: %CPHS - start, SIM error for optional fields

Description:

Start CPHS module. SIM returns error on reading optional fields but should continue to initialize for CPHS.

Preamble:

ACI500A

```
     APL                          ACI                           PS
      |                            |                            |
(1)   |                            |        SIM_READ_REQ        |
      |                            *===========================>*
(2)   |                            |        SIM_READ_CNF        |
      |                            *<===========================*
(3)   |                            |        SIM_READ_REQ        |
      |                            *===========================>*
(4)   |                            |        SIM_READ_CNF        |
      |                            *<===========================*
(5)   |                            |        SIM_READ_REQ        |
      |                            *===========================>*
(6)   |                            |        SIM_READ_CNF        |
      |                            *<===========================*
(7)   |                            |    SIM_READ_RECORD_REQ     |
      |                            *===========================>*
(8)   |                            |    SIM_READ_RECORD_CNF     |
      |                            *<===========================*
(9)   |                            |    SIM_READ_RECORD_REQ     |
      |                            *===========================>*
(10)  |                            |    SIM_READ_RECORD_CNF     |
      |                            *<===========================*
(11)  |                            |    SIM_READ_RECORD_REQ     |
      |                            *===========================>*
(12)  |                            |    SIM_READ_RECORD_CNF     |
      |                            *<===========================*
(13)  |                            |    SIM_READ_RECORD_REQ     |
      |                            *===========================>*
(14)  |                            |    SIM_READ_RECORD_CNF     |
      |                            *<===========================*
(15)  |        ACI_CMD_IND         |                            |
      |         (msg: OK)          |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CINF
	length	NOT_PRESENT_8BIT
	max_length	NUM_3
(2) SIM_READ_CNF		
	datafield	SIM_CPHS_CINF
	cause	SIM_NO_ERROR
	length	CPHS_INF_LEN
	trans_data	A_CPHS_INF_ALL_FIELD
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CSP

	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_CSP
(4) SIM_READ_CNF		
	datafield	SIM_CPHS_CSP
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_CSP_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_ONSHF
	length	NOT_PRESENT_8BIT
	max_length	MAX_CPHS_OPNS
(6) SIM_READ_CNF		
	datafield	SIM_CPHS_ONSHF
	cause	SIM_CAUSE_EF_INVALID
	length	NUM_0
	trans_data	A_CPHS_OPNS_FIELD
(7) SIM_READ_RECORD_REQ	source	SRC_MMI
	datafield	SIM_CPHS_MBXN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(8) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_MBXN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_4
	length	NUM_0
	linear_data	A_CPHS_MB1_REC1
(9) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(10) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_12
	length	NUM_0
	linear_data	A_CPHS_INUM_REC1
(11) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CPHS_INFN2
	record	NUM_1
	length	NOT_PRESENT_8BIT
(12) SIM_READ_RECORD_CNF		
	datafield	SIM_CPHS_INFN2
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_12

	length	NUM_0
	linear_data	A_CPHS_INUM_REC1
(13) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	NOT_PRESENT_8BIT
(14) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_CAUSE_EF_INVALID
	record	NUM_1
	max_record	NUM_0
	length	NUM_0
	linear_data	A_CPHS_INUM_REC12
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 13.11.2002 KGT Initial

4.21.36 ACI560: %CPVWI - failed Clear & Set due to SIM error

Description:

Clear or set current setting for voice waiting message flag for each line has failed due to a SIM error.

Variants: <A>....<D>

Preamble:

<A>ACI515B
<B>ACI501A
<C>ACI515B
<D>ACI501A

```
     APL                              ACI                              PS
      |                                |                               |
(1)   |          ACI_CMD_REQ           |                               |
      |      (cmd: AT%CPVWI=0…)        |                               |
      *==============================> *                               |
(2)   |                                |        SIM_UPDATE_REQ         |
      |                                *=============================> *
(3)   |                                |        SIM_UPDATE_CNF         |
      |                                *<============================= *
(4)   |          ACI_CMD_IND           |                               |
      |         (msg: ERROR)           |                               |
      *<============================== *                               |
      |                                |                               |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_ALL)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_ALL)
<C>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_ALL)
<D>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_ALL)
<A>	cmd_seq	C_PERCENT_CPVWI_CLEAR_ALL
<B>	cmd_seq	C_PERCENT_CPVWI_CLEAR_ALL
<C>	cmd_seq	C_PERCENT_CPVWI_SET_ALL
<D>	cmd_seq	C_PERCENT_CPVWI_SET_ALL
(2) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_VMW
	length	CPHS_VWI_LEN
<A>	trans_data	A_CPHS_VWI_FIELD
<B>	trans_data	A_CPHS_VWI_FIELD
<C>	trans_data	A_CPHS_VWI_FIELD_ALL
<D>	trans_data	A_CPHS_VWI_FIELD_ALL
(3) SIM_UPDATE_CNF	datafield	SIM_CPHS_VMW
	cause	SIM_CAUSE_OTHER_ERROR
(4) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.37 ACI561: %CPVWI - Query after failed set or failed clear

Description:

Query current setting for voice waiting message flag for each line.

Variants: <A>....<D>

Preamble:

<A>ACI560A
<B>ACI560B
<C>ACI560C
<D>ACI560D

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |         ACI_CMD_REQ       |                            |
     |      (cmd: AT%CPVWI=2)    |                            |
     *==========================>*                            |
(2)  |         ACI_CMD_IND       |                            |
     |       (msg: %CPVWI:…)     |                            |
     *<==========================*                            |
(3)  |         ACI_CMD_IND       |                            |
     |          (msg: OK)        |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_QUERY_ALL)
	cmd_seq	C_PERCENT_CPVWI_QUERY_ALL
(2) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1L2)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_MSG_L1L2)
<D>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPVWI_NOMSG)
<A>	cmd_seq	M_PERCENT_CPVWI_MSG_L1L2
<B>	cmd_seq	M_PERCENT_CPVWI_NOMSG
<C>	cmd_seq	M_PERCENT_CPVWI_MSG_L1L2
<D>	cmd_seq	M_PERCENT_CPVWI_NOMSG
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.01.2003 KGT Initial

4.21.38 ACI562: %CPVWI - Clear, Set & Query after failed CPHS initialization

Description:

Try to clear, set or query current setting for voice waiting message flag after failed CPHS initialization.

Variants: <A>....<C>

Preamble:

ACI551

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT%CPVWIx…)      |                             |
     *===========================> *                             |
(2)  |         ACI_CMD_IND         |                             |
     |        (msg: ERROR)         |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_CLEAR_ALL)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_SET_ALL)
<C>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPVWI_QUERY_ALL)
<A>	cmd_seq	C_PERCENT_CPVWI_CLEAR_ALL
<B>	cmd_seq	C_PERCENT_CPVWI_SET_ALL
<C>	cmd_seq	C_PERCENT_CPVWI_QUERY_ALL
(2) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.39 ACI564: %CPCFU - failed Clear & Set due to SIM error

Description:

Clear or set current setting for call forwarding unconditional for each line has failed due to a SIM error.

Variants: <A>....<D>

Preamble:

<A>ACI519E
<B>ACI501A
<C>ACI519E
<D>ACI501A

```
        APL                         ACI                         PS
         |                           |                           |
(5)      |        ACI_CMD_REQ        |                           |
         |     (cmd: AT%CPCFU=0…)    |                           |
         *==========================>*                           |
(6)      |                           |      SIM_UPDATE_REQ       |
         |                           *==========================>*
(7)      |                           |      SIM_UPDATE_CNF       |
         |                           *<==========================*
(8)      |        ACI_CMD_IND        |                           |
         |       (msg: ERROR)        |                           |
         *<==========================*                           |
         |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_CLEAR_ALL)
<B>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_CLEAR_ALL)
<C>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_SET_ALL)
<D>	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_SET_ALL)
<A>	cmd_seq	C_PERCENT_CPCFU_CLEAR_ALL
<B>	cmd_seq	C_PERCENT_CPCFU_CLEAR_ALL
<C>	cmd_seq	C_PERCENT_CPCFU_SET_ALL
<D>	cmd_seq	C_PERCENT_CPCFU_SET_ALL
(6) SIM_UPDATE_REQ	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_CPHS_CFF
	length	CPHS_CFU_LEN
<A>	trans_data	A_CPHS_CFU_FIELD
<B>	trans_data	A_CPHS_CFU_FIELD
<C>	trans_data	A_CPHS_CFU_FIELD_ALL
<D>	trans_data	A_CPHS_CFU_FIELD_ALL
(7) SIM_UPDATE_CNF	datafield	SIM_CPHS_CFF
	cause	SIM_CAUSE_OTHER_ERROR
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_UNKNOWN)
	cmd_seq	M_ERR_UNKNOWN

History: 29.04.2003 TLU Initial

4.21.40 ACI565: %CPCFU - Query after failed set or failed clear

Description:

Query current setting for call forwarding unconditional flag for each line.

Variants: <A>....<D>

Preamble:

<A>ACI564A
<B>ACI564B
<C>ACI564C
<D>ACI564D

```
    APL                         ACI                          PS
     |                           |                            |
(4)  |         ACI_CMD_REQ       |                            |
     |      (cmd: AT%CPCFU=2)    |                            |
     *==========================>*                            |
(5)  |         ACI_CMD_IND       |                            |
     |       (msg: %CPCFU:…)     |                            |
     *<==========================*                            |
(6)  |         ACI_CMD_IND       |                            |
     |          (msg: OK)        |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_QUERY_ALL)
	cmd_seq	C_PERCENT_CPCFU_QUERY_ALL
(5) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L1)
<B>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_NOFLG)
<C>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_FLG_L1)
<D>	cmd_len	NUM_ELEMENTS(M_PERCENT_CPCFU_NOFLG)
<A>	cmd_seq	M_PERCENT_CPCFU_FLG_L1
<B>	cmd_seq	M_PERCENT_CPCFU_NOFLG
<C>	cmd_seq	M_PERCENT_CPCFU_FLG_L1
<D>	cmd_seq	M_PERCENT_CPCFU_NOFLG
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.01.2003 KGT Initial

4.21.41 ACI566: %CPCFU - Query after failed CPHS initialization

Description:

Try to query current setting for CFU after failed CPHS initialization.

Preamble:

ACI551

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT%CPCFUx…)     |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |       (msg: ERROR)        |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPCFU_QUERY_ALL)
	cmd_seq	C_PERCENT_CPCFU_QUERY_ALL
(2) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.42 ACI567: %CPOPN - Query after failed CPHS initialization

Description:

Try to query current setting for operator name string after failed CPHS initialization.

Preamble:

ACI551

```
     APL                         ACI                         PS
      |                           |                           |
(1)   |        ACI_CMD_REQ        |                           |
      |     (cmd: AT%CPOPNx…)     |                           |
      *==========================>*                           |
(2)   |        ACI_CMD_IND        |                           |
      |       (msg: ERROR)        |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPOPN)
	cmd_seq	C_PERCENT_CPOPN

Primitive	Parameter	Value
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_UNKNOWN)
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.43 ACI568: %CPALS - Query after failed CPHS initialization

Description:

Try to query current line for alternate line service after failed CPHS initialization.

Preamble:

ACI551

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |      (cmd: AT%CPALSx…)     |                            |
     *==========================> *                            |
(2)  |         ACI_CMD_IND        |                            |
     |        (msg: ERROR)        |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_CPALS_QUERY)
	cmd_seq	C_PERCENT_CPALS_QUERY
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_UNKNOWN)
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.44 ACI569: %CPINF - Query after failed CPHS initialization

Description:

Try to query settings for CPHS information after failed CPHS initialization.

Preamble:

ACI551

```
    APL                          ACI                           PS
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |     (cmd: AT%CPINF?)       |                            |
      *===========================>*                            |
(2)   |        ACI_CMD_IND         |                            |
      |       (msg: ERROR)         |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPINF)	
	cmd_seq	C_PERCENT_CPINF
(2) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.45 ACI570: %CPMB - Query after failed CPHS initialization

Description:

Try to query mailbox numbers after failed CPHS initialization.

Preamble:

ACI551

```
    APL                          ACI                           PS
      |                            |                            |
(1)   |        ACI_CMD_REQ         |                            |
      |     (cmd: AT%CPMB=x)       |                            |
      *===========================>*                            |
(2)   |        ACI_CMD_IND         |                            |
      |       (msg: ERROR)         |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

	NUM_ELEMENTS(C_PERCENT_CPMB_1)	
	cmd_seq	C_PERCENT_CPMB_1
(2) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

4.21.46 ACI571: %CPNUM - Query after failed CPHS initialization

Description:

Try to query information numbers after failed CPHS initialization.

Preamble:

ACI551

```
    APL                          ACI                            PS
     |                            |                              |
(1)  |         ACI_CMD_REQ        |                              |
     |      (cmd: AT%CPNUM=x)     |                              |
     *==========================> *                              |
(2)  |         ACI_CMD_IND        |                              |
     |         (msg: ERROR)       |                              |
     *<========================== *                              |
     |                            |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_CPNUMS_EXP_0)	
	cmd_seq	C_PERCENT_CPNUMS_EXP_0
(2) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_ERR_UNKNOWN)	
	cmd_seq	M_ERR_UNKNOWN

History: 8.01.2003 KGT Initial

*/

4.22 Engineering Mode (ACI650-ACI670)

4.22.1 ACI650: Infrastructure Data - Serving Cell

Description:

Request serving cell data from RR

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT%EM=2,1)     |                            |
     *==========================> *                            |
(2)  |                            |        EM_SC_INFO_REQ      |
     |                            *==========================> *
(3)  |                            |        EM_SC_INFO_CNF      |
     |                            *<========================== *
(4)  |         ACI_CMD_IND        |                            |
     |       (msg: %EM: ...)      |                            |
     *<========================== *                            |
(5)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_EM_QUERY_1)	
	cmd_seq	C_PERCENT_EM_QUERY_1
(2) EM_SC_INFO_REQ		
	data	NUM_0
(3) EM_SC_INFO_CNF		
	arfcn	ARFCN
	c1	C1
	c2	C2
	rxlev	RXLEV
	bsic	BSIC
	dsc	DSC
	txlev	TXLEV
	tn	TN
	rlt	RLT
	tav	TAV
	rxlev_f	RXLEV_F

	rxlev_s	RXLEV_S
	rxqual_f	RXQUAL_F
	rxqual_s	RXQUAL_S
	lac	LAC
	cba	CBA
	cbq	CBQ
(1) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_1)
	cmd_seq	M_PERCENT_EM_1
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.2 ACI651: Infrastructure Data - Neighbour Cell

Description:

Request serving cell data from RR

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT%EM=2,3)      |                            |
     *===========================>*                            |
(2)  |                            |       EM_NC_INFO_REQ       |
     |                            *===========================>*
(3)  |                            |       EM_NC_INFO_CNF       |
     |                            *<===========================*
(4)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(6)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(7)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(8)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(9)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(10) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(11) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(12) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(13) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(14) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(15) |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     *<===========================*                            |
(16) |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

cmd_len	NUM_ELEMENTS(C_PERCENT_EM_QUERY_3)
cmd_seq	C_PERCENT_EM_QUERY_3

(2) EM_NC_INFO_REQ

data	NUM_0

(3) EM_NC_INFO_CNF

no_ncells	NO_NCELLS
arfcn_nc	A_ARFCN_NC
c1_nc	A_C1_NC
c2_nc	A_C2_NC
rxlev_nc	A_RXLEV_NC
bsic_nc	A_BSIC_NC
cell_id_nc	A_CELL_ID_NC
lac_nc	A_LAC_NC
frame_offset	A_FRAME_OFFSET
time_alignmt	A_TIME_ALIGNMT
cba_nc	A_CBA_NC
cbq_nc	A_CBQ_NC

(4) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_1)
cmd_seq	M_PERCENT_EM_3_1

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_2)
cmd_seq	M_PERCENT_EM_3_2

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_3)
cmd_seq	M_PERCENT_EM_3_3

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_4)
cmd_seq	M_PERCENT_EM_3_4

(8) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_5)
cmd_seq	M_PERCENT_EM_3_5

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_6)
cmd_seq	M_PERCENT_EM_3_6

(10) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_7)
cmd_seq	M_PERCENT_EM_3_7

(11) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_8)
cmd_seq	M_PERCENT_EM_3_8

(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_9)
	cmd_seq	M_PERCENT_EM_3_9
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_10)
	cmd_seq	M_PERCENT_EM_3_10
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_11)
	cmd_seq	M_PERCENT_EM_3_11
(15) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_3_11)
	cmd_seq	M_PERCENT_EM_3_11
(16) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.3 ACI652: Infrastructure Data – Location and Paging Parameters

Description:

Request location and paging parameters from RR

Preamble:

ACI001

```
      APL                          ACI                          PS
       |                            |                            |
(1)    |         ACI_CMD_REQ        |                            |
       |       (cmd: AT%EM=2,4)     |                            |
       *===========================>*                            |
(2)    |                            |    EM_LOC_PAG_INFO_REQ     |
       |                            *===========================>*
(3)    |                            |    EM_LOC_PAG_INFO_CNF     |
       |                            *<===========================*
(4)    |         ACI_CMD_IND        |                            |
       |       (msg: %EM: ...)      |                            |
       *<===========================*                            |
(5)    |         ACI_CMD_IND        |                            |
       |          (msg: OK)         |                            |
       *<===========================*                            |
       |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_PERCENT_EM_QUERY_4)
	cmd_seq	C_PERCENT_EM_QUERY_4
(2) EM_LOC_PAG_INFO_REQ		
	data	NUM_0
(3) EM_LOC_PAG_INFO_CNF		
	bs_pa_mfrms	BS_PA_MFRMS
	t3212	T3212
	mcc	MCC_PLMN_LST_6
	mnc	MNC_PLMN_LST_6
	tmsi	TMSI
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_4)
	cmd_seq	M_PERCENT_EM_4
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 10.10.2001 OT Initial

4.22.4 ACI653: Infrastructure Data – PLMN Parameters

Description:

Request plmn parameters from RR

Preamble:

ACI001

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: AT%EM=2,5)     |                           |
     *==========================>*                           |
(2)  |                           |      EM_PLMN_INFO_REQ     |
     |                           *==========================>*
(3)  |                           |      EM_PLMN_INFO_CNF     |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |      (msg: %EM: ...)      |                           |
     *<==========================*                           |
(5)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	

	NUM_ELEMENTS(C_PERCENT_EM_QUERY_5)	
	cmd_seq	C_PERCENT_EM_QUERY_5
(2) EM_PLMN_INFO_REQ		
	data	NUM_0
(3) EM_PLMN_INFO_CNF		
	no_creq_max	NO_CREQ_MAX
	reest_flag	REEST_FLAG
	txpwr_max	TXPWR_MAX
	rxlev_min	RXLEV_MIN
	rel_cause	REL_CS
(4) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PERCENT_EM_5)	
	cmd_seq	M_PERCENT_EM_5
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.5 ACI654: Infrastructure Data – Ciphering, Hopping and DTX Parameters

Description:

Request ciphering, hopping and dtx parameter from RR

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT%EM=2,6)      |                            |
     *==========================> *                            |
(2)  |                            |  EM_CIP_HOP_DTX_INFO_REQ   |
     |                            *==========================> *
(3)  |                            |  EM_CIP_HOP_DTX_INFO_CNF   |
     |                            * <========================== *
(4)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     * <========================== *                            |
(5)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     * <========================== *                            |
(6)  |        ACI_CMD_IND         |                            |
     |      (msg: %EM: ...)       |                            |
     * <========================== *                            |
(7)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     * <========================== *                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EM_QUERY_6)
	cmd_seq	C_PERCENT_EM_QUERY_6
(2) EM_CIP_HOP_DTX_INFO_REQ		
	data	NUM_0
(3) EM_CIP_HOP_DTX_INFO_CNF		
	ciph_stat	CIPH_STAT
	hop_chn	S_HOP_CHN
	hsn	HSN
	dtx_stat	DTX_STAT
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_6_1)
	cmd_seq	M_PERCENT_EM_6_1
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_6_2)
	cmd_seq	M_PERCENT_EM_6_2
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_6_3)
	cmd_seq	M_PERCENT_EM_6_3
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.6 ACI655: Mobile Data – Power Parameters

Description:

Request serving cell data from RR

Preamble:

ACI001

```
        APL                          ACI                          PS
         |                            |                            |
(1)      |         ACI_CMD_REQ        |                            |
         |      (cmd: AT%EM=2,7)      |                            |
         *==========================> *                            |
(2)      |                            |      EM_POWER_INFO_REQ     |
         |                            *==========================> *
(3)      |                            |      EM_POWER_INFO_CNF     |
         |                            *<========================== *
(4)      |         ACI_CMD_IND        |                            |
         |       (msg: %EM: ...)      |                            |
         *<========================== *                            |
(5)      |         ACI_CMD_IND        |                            |
         |       (msg: %EM: ...)      |                            |
         *<========================== *                            |
(6)      |         ACI_CMD_IND        |                            |
         |         (msg: OK)          |                            |
         *<========================== *                            |
         |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EM_QUERY_7)
	cmd_seq	C_PERCENT_EM_QUERY_7
(2) EM_POWER_INFO_REQ		
	data	NUM_0
(3) EM_POWER_INFO_CNF		
	classm2	S_CLASSM2
	classm3	S_CLASSM3
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_7_1)
	cmd_seq	M_PERCENT_EM_7_1
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_7_2)
	cmd_seq	M_PERCENT_EM_7_2
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.7 ACI656: Mobile Data – Identity Parameters

Description:

Request serving cell data from RR

Preamble:

ACI001

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT%EM=2,8)       |                              |
     *============================> *                              |
(2)  |                              |    EM_IDENTITY_INFO_REQ      |
     |                              *============================> *
(3)  |                              |    EM_IDENTITY_INFO_CNF      |
     |                              * <============================*
(4)  |         ACI_CMD_IND          |                              |
     |        (msg: %EM: ...)       |                              |
     * <============================*                              |
(5)  |         ACI_CMD_IND          |                              |
     |        (msg: %EM: ...)       |                              |
     * <============================*                              |
(6)  |         ACI_CMD_IND          |                              |
     |        (msg: %EM: ...)       |                              |
     * <============================*                              |
(7)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     * <============================*                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EM_QUERY_8)
	cmd_seq	C_PERCENT_EM_QUERY_8
(2) EM_IDENTITY_INFO_REQ		
	data	NUM_0
(3) EM_IDENTITY_INFO_CNF		
	em_imeisv	S_IMEI
	em_imsi	S_IMSI
	tmsi	TMSI
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_8_1)
	cmd_seq	M_PERCENT_EM_8_1
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EM_8_2)
	cmd_seq	M_PERCENT_EM_8_2

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PERCENT_EM_8_3)
cmd_seq	M_PERCENT_EM_8_3

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.8 ACI657: Mobile Data – SW-Version

Description:

Request serving cell data from RR

Preamble:

ACI001

```
    APL                         ACI                          PS
      |                           |                           |
(1)   |       ACI_CMD_REQ         |                           |
      |     (cmd: AT%EM=2,9)      |                           |
      *==========================>*                           |
(2)   |                           |  EM_SW_VERSION_INFO_REQ   |
      |                           *==========================>*
(3)   |                           |  EM_SW_VERSION_INFO_CNF   |
      |                           *<==========================*
(4)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(5)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(6)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(7)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(8)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(9)   |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(10)  |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(11)  |       ACI_CMD_IND         |                           |
      |     (msg: %EM: ...)       |                           |
      *<==========================*                           |
(12)  |       ACI_CMD_IND         |                           |
      |        (msg: OK)          |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(8) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_EM_QUERY_9)	
	cmd_seq	C_PERCENT_EM_QUERY_9
(9) EM_SW_VERSION_INFO_REQ		
	data	NUM_0
(10) EM_SW_VERSION_INFO_CNF		
	v_mmi	V_MMI
	v_sim	V_SIM
	v_cc	V_CC
	v_ss	V_SS
	v_sms	V_SMS

		v_mm	V_MM
		v_rr	V_RR
		v_dl	V_DL
		v_l1	V_L1
(11)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_1)
		cmd_seq	M_PERCENT_EM_9_1
(12)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_2)
		cmd_seq	M_PERCENT_EM_9_2
(13)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_3)
		cmd_seq	M_PERCENT_EM_9_3
(14)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_4)
		cmd_seq	M_PERCENT_EM_9_4
(15)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_5)
		cmd_seq	M_PERCENT_EM_9_5
(16)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_6)
		cmd_seq	M_PERCENT_EM_9_6
(17)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_7)
		cmd_seq	M_PERCENT_EM_9_7
(18)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PERCENT_EM_9_8)
		cmd_seq	M_PERCENT_EM_9_8
(19)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 25.09.2001 OT Initial

4.22.9 ACI660: Event Trace – ALR

4.22.10 ACI661: Event Trace – DL

Description:

Engineering mode request event traces from DL

Preamble:

ACI001

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     | (cmd: AT%EMETS=2,0,0x0005)  |                             |
     *===========================> *                             |
(2)  |                             |       EM_DL_EVENT_REQ       |
     |                             *===========================> *
(3)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
(4)  |                             |         EM_DATA_IND         |
     |                             *<=========================== *
(5)  |         ACI_CMD_REQ         |                             |
     |     (cmd: AT%EMET=255)      |                             |
     *===========================> *                             |
(6)  |         ACI_CMD_IND         |                             |
     |      (msg: %EMET: ...)      |                             |
     *<=========================== *                             |
(7)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<=========================== *                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMETS_2)
	cmd_seq	C_PERCENT_EMETS_2
(2) EM_DL_EVENT_REQ		
	bitmask_dl	BITMASK_DL
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) EM_DATA_IND		
	entity	ENTITY_DL
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMET_255)
	cmd_seq	C_PERCENT_EMET_255

(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EMET_4)
	cmd_seq	M_PERCENT_EMET_4
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 30.01.2002 OT Initial

4.22.11 ACI662: Event Trace - RR

Description:

Engineering mode request event traces from RR

Preamble:

ACI001

```
     APL                         ACI                           PS
      |                           |                            |
(1)   |        ACI_CMD_REQ        |                            |
      | (cmd: AT%EMETS=3,0,0x2400) |                            |
      *==========================>*                            |
(2)   |                           |       EM_RR_EVENT_REQ      |
      |                           *==========================>*
(3)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
(4)   |                           |         EM_DATA_IND        |
      |                           *<==========================*
(5)   |        ACI_CMD_REQ        |                            |
      |      (cmd: AT%EMET=4)     |                            |
      *==========================>*                            |
(6)   |        ACI_CMD_IND        |                            |
      |      (msg: %EMET: ...)    |                            |
      *<==========================*                            |
(7)   |        ACI_CMD_IND        |                            |
      |         (msg: OK)         |                            |
      *<==========================*                            |
      |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMETS_3)
	cmd_seq	C_PERCENT_EMETS_3
(2) EM_RR_EVENT_REQ		
	bitmask_rr_h	BITMASK_H
	bitmask_rr_l	BITMASK_L

(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) EM_DATA_IND		
	entity	ENTITY_RR
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PERCENT_EMET_3)	
	cmd_seq	C_PERCENT_EMET_3
(6) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_PERCENT_EMET_3)	
	cmd_seq	M_PERCENT_EMET_3
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.10.2001 OT Initial

4.22.12 ACI663: Event Trace - MM

Description:

Engineering mode request event traces from MM

Preamble:

ACI001

```
    APL                            ACI                            PS
     |                              |                              |
(1)  |         ACI_CMD_REQ          |                              |
     | (cmd: AT%EMETS=4,0,0x3000)   |                              |
     *============================> *                              |
(2)  |                              |        EM_MM_EVENT_REQ       |
     |                              *============================> *
(3)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================ *                              |
(4)  |                              |          EM_DATA_IND         |
     |                              *<============================ *
(5)  |         ACI_CMD_REQ          |                              |
     |       (cmd: AT%EMET=8)       |                              |
     *============================> *                              |
(6)  |         ACI_CMD_IND          |                              |
     |      (msg: %EMET: ...)       |                              |
     *<============================ *                              |
(7)  |         ACI_CMD_IND          |                              |
     |          (msg: OK)           |                              |
     *<============================ *                              |
     |                              |                              |
```

Parametrization:

Primitive	Parameter	Value

(8) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMETS_4)
	cmd_seq	C_PERCENT_EMETS_4
(9) EM_MM_EVENT_REQ		
	bitmask_mm	BITMASK_MM
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(11) EM_DATA_IND		
	entity	ENTITY_MM
(12) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMET_4)
	cmd_seq	C_PERCENT_EMET_4
(13) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PERCENT_EMET_4)
	cmd_seq	M_PERCENT_EMET_4
(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 30.01.2002 OT Initial

4.22.13 ACI668: Event Trace – RR & MM

Description:

Engineering mode request event traces from RR & MM

Preamble:

ACI001

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     | (cmd: AT%EMETS=4,0,0x3000)  |                             |
     *===========================> *                             |
(2)  |                             |       EM_MM_EVENT_REQ       |
     |                             *===========================> *
(3)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
(4)  |         ACI_CMD_REQ         |                             |
     | (cmd: AT%EMETS=3,0,0x2400)  |                             |
     *===========================> *                             |
(5)  |                             |       EM_RR_EVENT_REQ       |
     |                             *===========================> *
(6)  |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
(7)  |                             |         EM_DATA_IND         |
     |                             * <===========================*
(8)  |                             |         EM_DATA_IND         |
     |                             * <===========================*
(9)  |         ACI_CMD_REQ         |                             |
     |      (cmd: AT%EMET=12)      |                             |
     *===========================> *                             |
(10) |         ACI_CMD_IND         |                             |
     |      (msg: %EMET: ...)      |                             |
     * <===========================*                             |
(11) |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     * <===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMETS_4)
	cmd_seq	C_PERCENT_EMETS_4
(2) EM_MM_EVENT_REQ		
	bitmask_mm	BITMASK_MM
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_EMETS_3)
	cmd_seq	C_PERCENT_EMETS_3

(5) EM_RR_EVENT_REQ		
	bitmask_rr_h	BITMASK_H
	bitmask_rr_l	BITMASK_L
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) EM_DATA_IND		
	entity	ENTITY_MM
(8) EM_DATA_IND		
	entity	ENTITY_RR
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_EMET_12)	
	cmd_seq	C_PERCENT_EMET_12
(10) ACI_CMD_IND		
	cmd_len	
	NUM_ELEMENTS(M_PERCENT_EMET_4)	
	cmd_seq	M_PERCENT_EMET_4
(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 30.01.2002 OT Initial

4.23 SIM locking, ME personalisation (ACI680-ACI699)

Tests 680-6685 are only passing, if the SMI project is compiled with the precompiler defintion “SIMLOCK”. This preprocessor defintion will switch on the personalisation of the ME, without it it will be an unpersonalised ME.

4.23.1 ACI680: ME (sub)network personalisation is on, IMSI of SIM is not matching #def SIMLOCK!!!

Description: ***SWITCH #define SIMLOCK is needed for this to pass !!!***

After activation of the SIM, it is detected that no PIN is required. The IMSI of the SIM is checked against the personalisation data of the ME that is is personalised on a <A>network or <B> subnetwork. The SIM is detected as not matching. After this a wrong PIN is entered three times. The last error message will be the question for the personalisation PUK.

Preamble:

ACI011

Variants: <A>....<B>

```
    APL                         ACI                          PS
     |                           |                            |
(1)  |                           |      SIM_ACTIVATE_CNF      |
     |                           *<===========================*
(2)  |                           |     SIM_MMI_INSERT_IND     |
     |                           *<===========================*
(3)  |         ACI_CMD_IND       |                            |
     |         (msg: err)        |                            |
     *<==========================*                            |
     |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_BDN_ENABLED
	sim_serv	SIM_SERV_ADN_BDN_SDN
<A>	imsi_field	IMSI_FIELD_NW_FAIL
<B>	imsi_field	IMSI_FIELD_NWSUB_FAIL
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(1) ACI_CMD_IND		
<A>	cmd_len NUM_ELEMENTS(M_ERR_LOCK_PN_PIN_REQ)	
<B>	cmd_len NUM_ELEMENTS(M_ERR_LOCK_PU_PIN_REQ)	
<A>	cmd_seq	M_ERR_LOCK_PN_PIN_REQ
<B>	cmd_seq	M_ERR_LOCK_PU_PIN_REQ

History: 21.03.02 GBR Initial

4.23.2 ACI681: ME provider / corporate personalisation is on, GID1/GID2 of SIM is not matching #def SIMLOCK!!!

Description:

After activation of the SIM, it is detected that no PIN is required. The IMSI, the GID1 and the GID2 file of the SIM are checked against the personalisation data of the ME that is is personalised on a service provider / corporate. The SIM is detected as not matching. After this a wrong PIN is entered three times. The last error message will be the question for the personalisation PUK.

Preamble:

ACI011

Variants: <A>....<B>

```
    APL                          ACI                          PS
      |                           |                           |
(1)   |                           |     SIM_ACTIVATE_CNF      |
      |                           *<==========================*
(2)   |                           |    SIM_MMI_INSERT_IND     |
      |                           *<==========================*
(3)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(4)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(5)   |                           |       SIM_READ_REQ        |
      |                           *==========================>*
(6)   |                           |       SIM_READ_CNF        |
      |                           *<==========================*
(7)   |       ACI_CMD_IND         |                           |
      |        (msg: err)         |                           |
      *<==========================*                           |
(8)   |       ACI_CMD_REQ         |                           |
      |    (cmd: +CPIN=5678)      |                           |
      *==========================>*                           |
(9)   |       ACI_CMD_IND         |                           |
      |        (msg: ERR)         |                           |
      *<==========================*                           |
(8)   |       ACI_CMD_REQ         |                           |
      |    (cmd: +CPIN=5678)      |                           |
      *==========================>*                           |
(9)   |       ACI_CMD_IND         |                           |
      |        (msg: ERR)         |                           |
      *<==========================*                           |
(8)   |       ACI_CMD_REQ         |                           |
      |    (cmd: +CPIN=5678)      |                           |
      *==========================>*                           |
(9)   |       ACI_CMD_IND         |                           |
      |        (msg: ERR)         |                           |
      *<==========================*                           |
      |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_BDN_ENABLED
	sim_serv	SIM_SERV_GID1_GID2
	imsi_field	IMSI_FIELD_NW_NS_OK
	pref_plmn	NOT_USED

	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_GID1
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(4) SIM_READ_CNF		
	datafield	SIM_GID1
	cause	SIM_NO_ERROR
	length	NUM_1
<A>	trans_data	A_GID1_FAIL_FIELD
<B>	trans_data	A_GID1_OK_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_GID2
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(6) SIM_READ_CNF		
	datafield	SIM_GID2
	cause	SIM_NO_ERROR
	length	NUM_1
	trans_data	A_GID2_FAIL_FIELD
(7) ACI_CMD_IND		
<A>	cmd_len NUM_ELEMENTS(M_ERR_LOCK_PP_PIN_REQ)	
<A>	cmd_seq	M_ERR_LOCK_PP_PIN_REQ
<B>	cmd_len NUM_ELEMENTS(M_ERR_LOCK_PC_PIN_REQ)	
<B>	cmd_seq	M_ERR_LOCK_PC_PIN_REQ
(8) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CPIN_5678)	
	cmd_seq	C_PLUS_CPIN_5678
(9) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_ERR_WRONG_PWD)	
	cmd_seq	M_ERR_WRONG_PWD
(10) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CPIN_5678)	
	cmd_seq	C_PLUS_CPIN_5678
(11) ACI_CMD_IND		
	cmd_len	

	NUM_ELEMENTS(M_ERR_WRONG_PWD)	
	cmd_seq	M_ERR_WRONG_PWD
(12) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CPIN_5678)	
	cmd_seq	C_PLUS_CPIN_5678
(13) ACI_CMD_IND		
<A>	cmd_len	
	NUM_ELEMENTS(M_ERR_LOCK_PP_PUK_REQ)	
<A>	cmd_seq	M_ERR_LOCK_PP_PUK_REQ
<B>	cmd_len	
	NUM_ELEMENTS(M_ERR_LOCK_PC_PUK_REQ)	
<B>	cmd_seq	M_ERR_LOCK_PC_PUK_REQ

History: 22.03.02 GBR Initial

4.23.3 ACI682: ME service personalisation is on, SIM is not supporting GID1 file #def SIMLOCK!!!

Description:

After activation of the SIM, it is detected that no PIN is required. The service provider personalisation is checked, but the SIM is not supporting the GID1 file.

Preamble:

ACI011

```
     APL                          ACI                          PS
      |                            |                            |
(1)   |                            |      SIM_ACTIVATE_CNF      |
      |                            *<===========================*
(2)   |                            |     SIM_MMI_INSERT_IND     |
      |                            *<===========================*
(3)   |        ACI_CMD_IND         |                            |
      |        (msg: err)          |                            |
      *<===========================*                            |
(4)   |        ACI_CMD_REQ         |                            |
      |     (cmd: +CPIN=1234)      |                            |
      *===========================>*                            |
(5)   |        ACI_CMD_IND         |                            |
      |        (msg: OK)           |                            |
      *<===========================*                            |
      |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9

ec_code	NOT_USED
pref_lang	NOT_USED

(2) SIM_MMI_INSERT_IND

func	SIM_ADN_BDN_ENABLED
sim_serv	SIM_SERV_ADN_BDN_SDN
imsi_field	IMSI_FIELD_NW_NS_OK
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(3) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PP_PIN_REQ)
cmd_seq	M_ERR_LOCK_PP_PIN_REQ

(4) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_1234)
cmd_seq	C_PLUS_CPIN_1234

(5) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	22.03.02	GBR	Initial

4.23.4 ACI683: ME corporate personalisation is on, SIM is not supporting the GID2 file #def SIMLOCK!!!

Description:

After activation of the SIM, it is detected that no PIN is required. The corporate personalisation is checked, but the SIM is not supporting the GID2 file.

Preamble:

ACI011

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |      SIM_ACTIVATE_CNF      |
     |                            *<==========================*
(2)  |                            |     SIM_MMI_INSERT_IND     |
     |                            *<==========================*
(3)  |                            |        SIM_READ_REQ        |
     |                            *==========================>*
(4)  |                            |        SIM_READ_CNF        |
     |                            *<==========================*
(5)  |        ACI_CMD_IND         |                            |
     |         (msg: err)         |                            |
     *<==========================*                            |
(6)  |        ACI_CMD_REQ         |                            |
     |      (cmd: +CPIN=1234)     |                            |
     *==========================>*                            |
(7)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_BDN_ENABLED
	sim_serv	SIM_SERV_GID1_NOGID2
	imsi_field	IMSI_FIELD_NW_NS_OK
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED
(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_GID1
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(4) SIM_READ_CNF		
	datafield	SIM_GID1
	cause	SIM_NO_ERROR
	length	NUM_1
	trans_data	A_GID1_OK_FIELD

Primitive	Parameter	Value
(5) ACI_CMD_IND		
	cmd_len NUM_ELEMENTS(M_ERR_LOCK_PC_PIN_REQ)	
	cmd_seq	M_ERR_LOCK_PC_PIN_REQ
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CPIN_1234)	
	cmd_seq	C_PLUS_CPIN_1234
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	22.03.02	GBR	Initial

4.23.5 ACI684: ME SIM personalisation is on, SIM is not matching #def SIMLOCK!!!

Description:

After activation of the SIM, it is detected that no PIN is required. The complete IMSI of the SIM is checked against the personalisation data of the ME that is is personalised on a single SIM. The SIM is detected as having a not matching IMSI. As all other locks are switched on in the test stack and the SIM personalisation is the last to be checked, all other personalisation checks are executed before checking the SIM lock personalisation.

Preamble:

ACI011

```
     APL                           ACI                            PS
      |                             |                             |
(1)   |                             |      SIM_ACTIVATE_CNF       |
      |                             *<=========================== *
(2)   |                             |     SIM_MMI_INSERT_IND      |
      |                             *<=========================== *
(3)   |                             |        SIM_READ_REQ         |
      |                             * ===========================>*
(4)   |                             |        SIM_READ_CNF         |
      |                             *<=========================== *
(5)   |                             |        SIM_READ_REQ         |
      |                             * ===========================>*
(6)   |                             |        SIM_READ_CNF         |
      |                             *<=========================== *
(7)   |         ACI_CMD_IND         |                             |
      |         (msg: err)          |                             |
      *<=========================== *                             |
(8)   |         ACI_CMD_REQ         |                             |
      |      (cmd: +CPIN=1234)      |                             |
      * ===========================>*                             |
(9)   |         ACI_CMD_IND         |                             |
      |         (msg: OK)           |                             |
      *<=========================== *                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value

(1) SIM_ACTIVATE_CNF

cause	SIM_NO_ERROR
pin_cnt	NUM_3
puk_cnt	NUM_9
pin2_cnt	NUM_3
puk2_cnt	NUM_9
ec_code	NOT_USED
pref_lang	NOT_USED

(2) SIM_MMI_INSERT_IND

func	SIM_ADN_BDN_ENABLED
sim_serv	SIM_SERV_GID1_GID2
imsi_field	IMSI_FIELD_SIM_FAIL
pref_plmn	NOT_USED
phase	PHASE_2_SIM
access_acm	NOT_USED
access_acmmax	NOT_USED
access_puct	NOT_USED

(3) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_GID1
length	NOT_PRESENT_8BIT
max_length	NUM_5

(4) SIM_READ_CNF

datafield	SIM_GID1
cause	SIM_NO_ERROR
length	NUM_1
trans_data	A_GID1_OK_FIELD

(5) SIM_READ_REQ

source	SRC_MMI
offset	NUM_0
datafield	SIM_GID2
length	NOT_PRESENT_8BIT
max_length	NUM_5

(6) SIM_READ_CNF

datafield	SIM_GID2
cause	SIM_NO_ERROR
length	NUM_1
trans_data	A_GID2_OK_FIELD

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PH_PIN_REQ)
cmd_seq	M_ERR_LOCK_PH_PIN_REQ

(8) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_1234)
cmd_seq	C_PLUS_CPIN_1234

(9) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_OK)
cmd_seq	M_OK

History:	25.03.02	GBR	Initial

4.23.6 ACI685: All Personalisations are switched on, SIM is matching.

Description:

After activation of the SIM, it is detected that no PIN is required. The complete IMSI of the SIM is checked against the personalisation data of the ME that is is personalised in all possible ways. The SIM is detected as matching all personalisations. This test will go through all personalisation tests.

Preamble:

ACI011

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |                            |      SIM_ACTIVATE_CNF      |
     |                            *<===========================*
(2)  |                            |     SIM_MMI_INSERT_IND     |
     |                            *<===========================*
(3)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(4)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(5)  |                            |        SIM_READ_REQ        |
     |                            *===========================>*
(6)  |                            |        SIM_READ_CNF        |
     |                            *<===========================*
(7)  |         ACI_CMD_IND        |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_ACTIVATE_CNF		
	cause	SIM_NO_ERROR
	pin_cnt	NUM_3
	puk_cnt	NUM_9
	pin2_cnt	NUM_3
	puk2_cnt	NUM_9
	ec_code	NOT_USED
	pref_lang	NOT_USED
(2) SIM_MMI_INSERT_IND		
	func	SIM_ADN_BDN_ENABLED
	sim_serv	SIM_SERV_GID1_GID2
	imsi_field	IMSI_FIELD_SIM_OK
	pref_plmn	NOT_USED
	phase	PHASE_2_SIM
	access_acm	NOT_USED
	access_acmmax	NOT_USED
	access_puct	NOT_USED

(3) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_GID1
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(4) SIM_READ_CNF		
	datafield	SIM_GID1
	cause	SIM_NO_ERROR
	length	NUM_1
	trans_data	A_GID1_OK_FIELD
(5) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_GID2
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(6) SIM_READ_CNF		
	datafield	SIM_GID2
	cause	SIM_NO_ERROR
	length	NUM_1
	trans_data	A_GID2_OK_FIELD
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 25.03.02 GBR Initial

4.23.7 ACI686: ME network personalisation failed, correct PIN is entered #def SIMLOCK!!!

Description:

The SIM is detected as not matching the network personalisation check. After this a correct PIN is entered and the ME is depersonalised.

Preamble:

ACI680A

```
    APL                          ACI                           PS
(1)  |         ACI_CMD_REQ        |                             |
     |      (cmd: +CPIN=1234)     |                             |
     *==========================> *                             |
(2)  |         ACI_CMD_IND        |                             |
     |          (msg: OK)         |                             |
     *<========================== *                             |
     |                            |                             |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len NUM_ELEMENTS(C_PLUS_CPIN_1234)	
	cmd_seq	C_PLUS_CPIN_1234
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 30.03.02 GBR Initial

4.23.8 ACI687: ME network personalisation failed, wrong PIN entered three times. #def SIMLOCK!!!

Description:

The SIM is detected as not matching the network personalisation check. After this a wrong PIN is entered three times. The last error message will be the question for the personalisation PUK.

Preamble:

ACI680A

```
    APL                         ACI                          PS
(1)   |          ACI_CMD_REQ       |                           |
      |      (cmd: +CPIN=5678)     |                           |
      *==========================> *                           |
(2)   |          ACI_CMD_IND       |                           |
      |           (msg: ERR)       |                           |
      *<========================== *                           |
(3)   |          ACI_CMD_REQ       |                           |
      |      (cmd: +CPIN=5678)     |                           |
      *==========================> *                           |
(4)   |          ACI_CMD_IND       |                           |
      |           (msg: ERR)       |                           |
      *<========================== *                           |
(5)   |          ACI_CMD_REQ       |                           |
      |      (cmd: +CPIN=5678)     |                           |
      *==========================> *                           |
(6)   |          ACI_CMD_IND       |                           |
      |           (msg: ERR)       |                           |
      *<========================== *                           |
(7)   |          ACI_CMD_REQ       |                           |
      |    (cmd: +CPIN=12345678)   |                           |
      *==========================> *                           |
(8)   |          ACI_CMD_IND       |                           |
      |            (msg: OK)       |                           |
      *<========================== *                           |
      |                            |                           |
```

Parametrization:

Primitive	Parameter	Value

(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_5678)
	cmd_seq	C_PLUS_CPIN_5678
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_5678)
	cmd_seq	C_PLUS_CPIN_5678
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_5678)
	cmd_seq	C_PLUS_CPIN_5678
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PN_PUK_REQ)
	cmd_seq	M_ERR_LOCK_PN_PUK_REQ
(9) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPIN_123456)
	cmd_seq	C_PLUS_CPIN_123456
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 30.03.02 GBR Initial

4.23.9 ACI690: Disable personalisation with the correct nck

Description:

Disable network personalisation with correct nck.

Preamble:

ACI001

Variants: <A>....<E>

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |   (cmd: AT+CLCK="Px",...)  |                            |
     *==========================>*                            |
(2)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<==========================*                            |
(3)  |         ACI_CMD_REQ        |                            |
     |   (cmd: AT+CLCK="Px",...)  |                            |
     *==========================>*                            |
(4)  |         ACI_CMD_IND        |                            |
     |       (msg: +CLCK: 1)      |                            |
     *<==========================*                            |
(5)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_DIS)
<A>	cmd_seq	C_PLUS_CLCK_PN_DIS
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_DIS)
<B>	cmd_seq	C_PLUS_CLCK_PU_DIS
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_DIS)
<C>	cmd_seq	C_PLUS_CLCK_PP_DIS
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_DIS)
<D>	cmd_seq	C_PLUS_CLCK_PC_DIS
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_DIS)
<E>	cmd_seq	C_PLUS_CLCK_PS_DIS
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_QUERY)
<A>	cmd_seq	C_PLUS_CLCK_PN_QUERY
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_QUERY)
<B>	cmd_seq	C_PLUS_CLCK_PU_QUERY
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_QUERY)
<C>	cmd_seq	C_PLUS_CLCK_PP_QUERY

<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_QUERY)
<D>	cmd_seq	C_PLUS_CLCK_PC_QUERY
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_QUERY)
<E>	cmd_seq	C_PLUS_CLCK_PS_QUERY
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLCK_DIS)
	cmd_seq	M_PLUS_CLCK_DIS
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.04.02 GBR Initial

4.23.10 ACI691: Enable personalisation with the correct nck

Description:

Enable network personalisation with correct nck.

Preamble:

ACI001

Variants: <A>....<E>

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |   (cmd: AT+CLCK="Px",...)  |                            |
     *==========================>*                            |
(2)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<==========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |   (cmd: AT+CLCK="Px",...)  |                            |
     *==========================>*                            |
(4)  |        ACI_CMD_IND         |                            |
     |       (msg: +CLCK: 1)      |                            |
     *<==========================*                            |
(5)  |        ACI_CMD_IND         |                            |
     |          (msg: OK)         |                            |
     *<==========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_ENA)
<A>	cmd_seq	C_PLUS_CLCK_PN_ENA
<B>	cmd_len	

		NUM_ELEMENTS(C_PLUS_CLCK_PU_ENA)
<B>	cmd_seq	C_PLUS_CLCK_PU_ENA
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_ENA)
<C>	cmd_seq	C_PLUS_CLCK_PP_ENA
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_ENA)
<D>	cmd_seq	C_PLUS_CLCK_PC_ENA
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_ENA)
<E>	cmd_seq	C_PLUS_CLCK_PS_ENA

(2) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(3) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_QUERY)
<A>	cmd_seq	C_PLUS_CLCK_PN_QUERY
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_QUERY)
<B>	cmd_seq	C_PLUS_CLCK_PU_QUERY
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_QUERY)
<C>	cmd_seq	C_PLUS_CLCK_PP_QUERY
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_QUERY)
<D>	cmd_seq	C_PLUS_CLCK_PC_QUERY
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_QUERY)
<E>	cmd_seq	C_PLUS_CLCK_PS_QUERY

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_PLUS_CLCK_ENA)
	cmd_seq	M_PLUS_CLCK_ENA

(5) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.04.02 GBR Initial

4.23.11 ACI692: Disable personalisation with the incorrect nck

Description:

Disable network personalisation with correct nck.

Preamble:

ACI010

Variants: <A>....<E>

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |         ACI_CMD_REQ       |                           |
     |   (cmd: AT+CLCK="Px",...) |                           |
     *=========================>*                           |
(2)  |         ACI_CMD_IND       |                           |
     |          (msg: err)       |                           |
     *<=========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_DIS)
<A>	cmd_seq	C_PLUS_CLCK_PN_DISERR
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_DIS)
<B>	cmd_seq	C_PLUS_CLCK_PU_DISERR
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_DIS)
<C>	cmd_seq	C_PLUS_CLCK_PP_DISERR
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_DIS)
<D>	cmd_seq	C_PLUS_CLCK_PC_DISERR
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_DIS)
<E>	cmd_seq	C_PLUS_CLCK_PS_DISERR
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD

History: 22.04.02 GBR Initial

4.23.12 ACI693: Enable personalisation with the incorrect nck

Description:

Enable network personalisation with correct nck.

Preamble:

ACI010

Variants: <A>....<E>

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |         ACI_CMD_REQ          |                              |
      |   (cmd: AT+CLCK="Px",...)    |                              |
      *============================>*                              |
(2)   |         ACI_CMD_IND          |                              |
      |          (msg: err)          |                              |
      *<============================*                              |
      |                              |                              |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
	<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_ENA)
	<A>	cmd_seq	C_PLUS_CLCK_PN_ENAERR
	<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_ENA)
	<B>	cmd_seq	C_PLUS_CLCK_PU_ENAERR
	<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_ENA)
	<C>	cmd_seq	C_PLUS_CLCK_PP_ENAERR
	<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_ENA)
	<D>	cmd_seq	C_PLUS_CLCK_PC_ENAERR
	<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_ENA)
	<E>	cmd_seq	C_PLUS_CLCK_PS_ENAERR
(4)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
		cmd_seq	M_ERR_WRONG_PWD

History: 22.04.02 GBR Initial

4.23.13 ACI694: Disable personalisation with the incorrect nck 3 times [BLOCKED]

Description:

Disable network personalisation with correct nck.

Preamble:

ACI010

Variants: <A>....<E>

```
      APL                         ACI                          PS
       |                           |                            |
(1)    |         ACI_CMD_REQ       |                            |
       |   (cmd: AT+CLCK="Px",...)  |                            |
       *==========================>*                            |
(2)    |         ACI_CMD_IND       |                            |
       |          (msg: err)       |                            |
       *<==========================*                            |
(3)    |         ACI_CMD_REQ       |                            |
       |   (cmd: AT+CLCK="Px",...)  |                            |
       *==========================>*                            |
(4)    |         ACI_CMD_IND       |                            |
       |          (msg: err)       |                            |
       *<==========================*                            |
(5)    |         ACI_CMD_REQ       |                            |
       |   (cmd: AT+CLCK="Px",...)  |                            |
       *==========================>*                            |
(6)    |         ACI_CMD_IND       |                            |
       |          (msg: err)       |                            |
       *<==========================*                            |
       |                           |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_DIS)
<A>	cmd_seq	C_PLUS_CLCK_PN_DISERR
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_DIS)
<B>	cmd_seq	C_PLUS_CLCK_PU_DISERR
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_DIS)
<C>	cmd_seq	C_PLUS_CLCK_PP_DISERR
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_DIS)
<D>	cmd_seq	C_PLUS_CLCK_PC_DISERR
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_DIS)
<E>	cmd_seq	C_PLUS_CLCK_PS_DISERR
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_DIS)
<A>	cmd_seq	C_PLUS_CLCK_PN_DISERR
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_DIS)

<B>	cmd_seq	C_PLUS_CLCK_PU_DISERR
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_DIS)
<C>	cmd_seq	C_PLUS_CLCK_PP_DISERR
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_DIS)
<D>	cmd_seq	C_PLUS_CLCK_PC_DISERR
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_DIS)
<E>	cmd_seq	C_PLUS_CLCK_PS_DISERR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
	cmd_seq	M_ERR_WRONG_PWD
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PN_DIS)
<A>	cmd_seq	C_PLUS_CLCK_PN_DISERR
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PU_DIS)
<B>	cmd_seq	C_PLUS_CLCK_PU_DISERR
<C>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PP_DIS)
<C>	cmd_seq	C_PLUS_CLCK_PP_DISERR
<D>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PC_DIS)
<D>	cmd_seq	C_PLUS_CLCK_PC_DISERR
<E>	cmd_len	NUM_ELEMENTS(C_PLUS_CLCK_PS_DIS)
<E>	cmd_seq	C_PLUS_CLCK_PS_DISERR
(6) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PN_PUK_REQ)
<A>	cmd_seq	M_ERR_LOCK_PN_PUK_REQ
<B>	cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PU_PUK_REQ)
<B>	cmd_seq	M_ERR_LOCK_PU_PUK_REQ
<C>	cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PP_PUK_REQ)
<C>	cmd_seq	M_ERR_LOCK_PP_PUK_REQ
<D>	cmd_len	NUM_ELEMENTS(M_ERR_LOCK_PC_PUK_REQ)
<D>	cmd_seq	M_ERR_LOCK_PC_PUK_REQ
<E>	cmd_len	NUM_ELEMENTS(M_ERR_WRONG_PWD)
<E>	cmd_seq	M_ERR_WRONG_PWD

History: 29.04.02 GBR Initial

4.24 diverse tests (ACI0900-ACI999)

4.24.1 ACI901: Manual Registration out of PCM: 901A FAILS: probably pcm default problem...

Description:

Preamble:

ACI024A

Variants: <A>....<C>

```
    APL                         ACI                          PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |   (cmd: AT+COPS=1,1,...)  |                           |
     *==========================>*                           |
(2)  |                           |      MMR_PLMN_MODE_REQ    |
     |                           *==========================>*
(3)  |                           |        MMR_PLMN_RES       |
     |                           *==========================>*
     |                           |                           |
```

Parametrization:

	Primitive	Parameter	Value
(1)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
	<A>	cmd_len	NUM_ELEMENTS(C_PLUS_COPS_MAN_LNG)
	<B>	cmd_len	NUM_ELEMENTS(C_PLUS_COPS_MAN_SHRT)
	<C>	cmd_len	NUM_ELEMENTS(C_PLUS_COPS_MAN_NUM)
	<A>	cmd_seq	C_PLUS_COPS_MAN_LNG
	<B>	cmd_seq	C_PLUS_COPS_MAN_SHRT
	<C>	cmd_seq	C_PLUS_COPS_MAN_NUM
(2)	MMR_PLMN_MODE_REQ	mode	MODE_MAN
(3)	MMR_PLMN_RES	plmn	S_PLMN_262_02

History: 01.07.99 AK Initial

4.24.2 ACI927: LDN tests

Description:

Test alternate line service.

Preamble:

ACI050A

```
       APL                          ACI                          PS
        |                            |                            |
(1)     |         ACI_CMD_REQ        |                            |
        |     (cmd: AT+CPBS=LDN)     |                            |
        *===========================>*                            |
(2)     |         ACI_CMD_IND        |                            |
        |          (msg: OK)         |                            |
        *<===========================*                            |
(3)     |         ACI_CMD_REQ        |                            |
        |    (cmd: AT+CPBR=1,13)     |                            |
        *===========================>*                            |
(4)     |         ACI_CMD_IND        |                            |
        |          (msg: OK)         |                            |
        *<===========================*                            |
        |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPBS_LD)
	cmd_seq	C_PLUS_CPBS_LD
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CPBR)
	cmd_seq	C_PLUS_CPBR
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 22.12.98 AK Initial

4.25 Voice Mail Number Tests (ACI0933-ACI936)

4.25.1 ACI933: Enable Voice Mail Number +CSVM=1,nbr,ton

Description: set Voice Mail Number

Preamble:

ACI001

```
     APL                          ACI                           PS
      |                            |                             |
(1)   |         ACI_CMD_REQ        |                             |
      |    (cmd: CSVM=1,nbr,ton)   |                             |
      *===========================>*                             |
(2)   |         ACI_CMD_IND        |                             |
      |          (msg: OK)         |                             |
      *<===========================*                             |
(3)   |         ACI_CMD_REQ        |                             |
      |        (cmd: CSVM?)        |                             |
      *===========================>*                             |
(4)   |         ACI_CMD_IND        |                             |
      |      (msg: +CSVM:1,..)     |                             |
      *<===========================*                             |
(5)   |         ACI_CMD_IND        |                             |
      |          (msg: OK)         |                             |
      *<===========================*                             |
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_ENABLE)
	cmd_seq	C_PLUS_CSVM_ENABLE
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_Q)
	cmd_seq	C_PLUS_CSVM_Q
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSVM_ENABLE)
	cmd_seq	M_PLUS_CSVM_ENABLE
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.25.2 ACI934: Query of Voice Mail Number +CSVM?

Description: Query of Voice Mail Number

Preamble:

ACI001

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |         ACI_CMD_REQ         |                             |
      |         (cmd: CSVM)         |                             |
      *============================>*                             |
(2)   |         ACI_CMD_IND         |                             |
      |      (msg: +CSVM:1,..)      |                             |
      *<============================*                             |
(3)   |         ACI_CMD_IND         |                             |
      |          (msg: OK)          |                             |
      *<============================*                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_Q)
	cmd_seq	C_PLUS_CSVM_Q
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSVM_Q)
	cmd_seq	M_PLUS_CSVM_Q
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.25.3 ACI935: Disable Voice Mail Number +CSVM=0

Description: Disable the mode of a Voice Mail Number and query.

Preamble:

ACI001

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |         ACI_CMD_REQ         |                             |
      |        (cmd: CSVM=0)        |                             |
      *===========================> *                             |
(2)   |         ACI_CMD_IND         |                             |
      |          (msg: OK)          |                             |
      *<=========================== *                             |
(3)   |         ACI_CMD_REQ         |                             |
      |        (cmd: CSVM?)         |                             |
      *===========================> *                             |
(4)   |         ACI_CMD_IND         |                             |
      |     (msg: +CSVM:0,..)       |                             |
      *<=========================== *                             |
(5)   |         ACI_CMD_IND         |                             |
      |          (msg: OK)          |                             |
      *<=========================== *                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_Disable)
	cmd_seq	C_PLUS_CSVM_Disable
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_Q)
	cmd_seq	C_PLUS_CSVM_Q
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSVM_Disable)
	cmd_seq	M_PLUS_CSVM_Disable
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	22.11.00	ENZ	Initial
	19.09.02	ACI	No phone number has been set yet: so it is empty when queried.

4.25.4 ACI936: Test of Voice Mail Number +CSVM=?

Description: test Voice Mail Number

Preamble:

ACI001

```
      APL                            ACI                            PS
       |                              |                              |
(1)    |         ACI_CMD_REQ          |                              |
       |        (cmd: CSVM=?)         |                              |
       *============================> *                              |
(2)    |         ACI_CMD_IND          |                              |
       |      (msg: +CSVM: ..)        |                              |
       * <============================*                              |
(3)    |         ACI_CMD_IND          |                              |
       |          (msg: OK)           |                              |
       * <============================*                              |
       |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CSVM_T)
	cmd_seq	C_PLUS_CSVM_T
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CSVM_T)
	cmd_seq	M_PLUS_CSVM_T
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	13.09.01	ENZ	Initial

4.26 Prefered Language Tests (ACI0937-ACI941)

4.26.1 ACI937: Test of language Event +CLAE=?

Description: Test of language Event +CLAE

Preamble:

ACI001

```
       APL                          ACI                          PS
        |                            |                            |
(1)     |        ACI_CMD_REQ         |                            |
        |      (cmd: +CLAE=?)        |                            |
        *==========================> *                            |
(2)     |        ACI_CMD_IND         |                            |
        |    (msg: +CLAE= (0-1))     |                            |
        *<========================== *                            |
(3)     |        ACI_CMD_IND         |                            |
        |         (msg: OK)          |                            |
        *<========================== *                            |
        |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAE_T)
	cmd_seq	C_PLUS_CLAE_T
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAE_T)
	cmd_seq	M_PLUS_CLAE_T
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	14.09.01	ENZ	Initial
	19.09.02	ACI	OK added !

4.26.2 ACI938: Enable/Disable the mode language Event +CLAE and query it

Description: set mode language Event +CLAE and query it

Variants:

<A>...<B>

Preamble:

ACI001

```
        APL                          ACI                          PS
         |                            |                            |
(1)      |        ACI_CMD_REQ         |                            |
         |     (cmd: +CLAE=0 / =1)    |                            |
         *===========================>*                            |
(2)      |        ACI_CMD_IND         |                            |
         |         (msg: OK)          |                            |
         *<===========================*                            |
(3)      |        ACI_CMD_REQ         |                            |
         |       (cmd: +CLAE?)        |                            |
         *===========================>*                            |
(4)      |        ACI_CMD_IND         |                            |
         |     (msg: +CLAE: 0 / 1)    |                            |
         *<===========================*                            |
(5)      |        ACI_CMD_IND         |                            |
         |         (msg: OK)          |                            |
         *<===========================*                            |
         |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
<A>	cmd_len	NUM_ELEMENTS(C_PLUS_CLAE_Ena)
<B>	cmd_len	NUM_ELEMENTS(C_PLUS_CLAE_Dis)
<A>	cmd_seq	C_PLUS_CLAE_Ena
<B>	cmd_seq	C_PLUS_CLAE_Dis
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAE_Q)
	cmd_seq	C_PLUS_CLAE_Q
(4) ACI_CMD_IND		
<A>	cmd_len	NUM_ELEMENTS(M_PLUS_CLAE_Q)
<B>	cmd_len	NUM_ELEMENTS(M_PLUS_CLAE_Dis)
<A>	cmd_seq	M_PLUS_CLAE_Q
<B>	cmd_seq	M_PLUS_CLAE_Dis
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	13.09.01	ENZ	Initial

4.26.3 ACI939: Test of supported languages AT+CLAN=?

Description: supported language codes of +CLAN

Preamble:

ACI001

```
       APL                           ACI                           PS
        |                             |                             |
(1)     |         ACI_CMD_REQ         |                             |
        |       (cmd: +CLAN=?)        |                             |
        *===========================> *                             |
(2)     |         ACI_CMD_IND         |                             |
        |          (msg: OK)          |                             |
        * <===========================*                             |
        |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_T)
	cmd_seq	C_PLUS_CLAN_T
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_T)
	cmd_seq	M_PLUS_CLAN_T

4.26.4 ACI940: set language +CLAN with result code enabled and query.

Description: set language code of +CLAN to German and then query.

Preamble:

ACI938A

```
    APL                          ACI                           PS
      |                            |                             |
(1)   |        ACI_CMD_REQ         |                             |
      |     (cmd: +CLAN="de")      |                             |
      *==========================> *                             |
(2)   |        ACI_CMD_IND         |                             |
      |  (result code +CLAV: de)   |                             |
      *<===========================*                             |
(3)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
(4)   |        ACI_CMD_REQ         |                             |
      |       (cmd: +CLAN?)        |                             |
      *==========================> *                             |
(5)   |        ACI_CMD_IND         |                             |
      |     (msg: +CLAN: de)       |                             |
      *<===========================*                             |
(6)   |        ACI_CMD_IND         |                             |
      |         (msg: OK)          |                             |
      *<===========================*                             |
      |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_S)
	cmd_seq	C_PLUS_CLAN_S
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAV_rst)
	cmd_seq	M_PLUS_CLAV_rst
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(4) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_Q)
	cmd_seq	C_PLUS_CLAN_Q
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_Q)
	cmd_seq	M_PLUS_CLAN_Q

Primitive	Parameter	Value
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 26.09.01 ENZ Initial

4.26.5 ACI941: set language +CLAN with result code disabled and query.

Description: set language code of +CLAN to German and then query.

Preamble:

ACI938B

```
      APL                          ACI                            PS
       |                            |                             |
(1)    |        ACI_CMD_REQ         |                             |
       |     (cmd: +CLAN="de")      |                             |
       *==========================> *                             |
(2)    |        ACI_CMD_IND         |                             |
       |         (msg: OK)          |                             |
       * <==========================*                             |
(3)    |        ACI_CMD_REQ         |                             |
       |       (cmd: +CLAN?)        |                             |
       *==========================> *                             |
(4)    |        ACI_CMD_IND         |                             |
       |     (msg: +CLAN: de)       |                             |
       * <==========================*                             |
(5)    |        ACI_CMD_IND         |                             |
       |         (msg: OK)          |                             |
       * <==========================*                             |
       |                            |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_S)
	cmd_seq	C_PLUS_CLAN_S
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_Q)
	cmd_seq	C_PLUS_CLAN_Q
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_Q)
	cmd_seq	M_PLUS_CLAN_Q
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

4.26.6 ACI943: Enable the result code +CLAE, set automatic select language +CLAN and query

Description: set language code of +CLAN to Automatic. SIM answers with German: this will be written in PCM. Then value is queried.

Preamble:

ACI938A

```
         APL                          ACI                           PS
          |                            |                            |
(1)       |        ACI_CMD_REQ         |                            |
          |     (cmd: +CLAN="au")      |                            |
          *==========================> *                            |
(2)       |                            |        SIM_READ_REQ        |
          |                            *==========================> *
(3)       |                            |        SIM_READ_CNF        |
          |                            * <==========================*
(4)       |        ACI_CMD_IND         |                            |
          |  (result code +CLAV:.de)   |                            |
          * <==========================*                            |
(5)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          * <==========================*                            |
(6)       |        ACI_CMD_REQ         |                            |
          |       (cmd: +CLAN?)        |                            |
          *==========================> *                            |
(7)       |        ACI_CMD_IND         |                            |
          |      (msg: +CLAN: de)      |                            |
          * <==========================*                            |
(8)       |        ACI_CMD_IND         |                            |
          |         (msg: OK)          |                            |
          * <==========================*                            |
          |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_AUTO)
	cmd_seq	C_PLUS_CLAN_AUTO
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ELP
	length	NOT_PRESENT_8BIT
	max_length	NUM_20
(3) SIM_READ_CNF		
	datafield	SIM_ELP
	cause	SIM_NO_ERROR
	length	NUM_18
	trans_data	A_ELP_FIELD

(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAV_rst)
	cmd_seq	M_PLUS_CLAV_rst
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(6) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_Q)
	cmd_seq	C_PLUS_CLAN_Q
(7) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_Q)
	cmd_seq	M_PLUS_CLAN_Q
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	26.09.01	ENZ	Initial
	17.09.02	ACI	When querying no request to SIM since it's already in PCM.

4.26.7 ACI944: Disable the result code +CLAE, set automatic select language +CLAN and query

Description: set language code of +CLAN to Automatic. SIM answers with German: this will be written in PCM. Then value is queried.

Preamble:

ACI938B

```
     APL                              ACI                              PS
      |                                |                                |
(1)   |          ACI_CMD_REQ           |                                |
      |       (cmd: +CLAN="au")        |                                |
      *==============================> *                                |
(2)   |                                |         SIM_READ_REQ           |
      |                                *==============================> *
(3)   |                                |         SIM_READ_CNF           |
      |                                *<============================== *
(4)   |          ACI_CMD_IND           |                                |
      |           (msg: OK)            |                                |
      *<============================== *                                |
(5)   |          ACI_CMD_REQ           |                                |
      |         (cmd: +CLAN?)          |                                |
      *==============================> *                                |
(6)   |          ACI_CMD_IND           |                                |
      |       (msg: +CLAN:de..)        |                                |
      *<============================== *                                |
(7)   |          ACI_CMD_IND           |                                |
      |           (msg: OK)            |                                |
      *<============================== *                                |
      |                                |                                |
```

Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PLUS_CLAN_AUTO)	
	cmd_seq	C_PLUS_CLAN_AUTO

(2) SIM_READ_REQ

	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ELP
	length	NOT_PRESENT_8BIT
	max_length	NUM_20

(3) SIM_READ_CNF

	datafield	SIM_ELP
	cause	SIM_NO_ERROR
	length	NUM_18
	trans_data	A_ELP_FIELD

(4) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

(5) ACI_CMD_REQ

	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_Q)
	cmd_seq	C_PLUS_CLAN_Q

(6) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_Q)
	cmd_seq	M_PLUS_CLAN_Q

(7) ACI_CMD_IND

	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	26.09.01	ENZ	Initial
	19.09.02	ACI	Same as for ACI943

4.26.8 ACI945: occur error of read EF ELP after set command +CLAN

Description: set language code of +CLAN

Variants:

<A>...<C>

Preamble:

ACI001

```
      APL                          ACI                          PS
       |                            |                            |
(1)    |        ACI_CMD_REQ         |                            |
       |        (cmd: +CLAN)        |                            |
       *==========================> *                            |
(2)    |                            |        SIM_READ_REQ        |
       |                            *==========================> *
(3)    |                            |        SIM_READ_CNF        |
       |                            *<========================== *
       |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_AUTO)
	cmd_seq	C_PLUS_CLAN_AUTO
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ELP
	length	NOT_PRESENT_8BIT
	max_length	NUM_20
(3) SIM_READ_CNF		
	datafield	SIM_ELP
<A>	cause	SIM_CAUSE_UNKN_FILE_ID
<B>	cause	SIM_CAUSE_UNKN_FILE_ID
<C>	cause	SIM_NO_ERROR
	length	NUM_18
<A>	trans_data	A_ELP_FIELD
<B>	trans_data	A_ELP_LAN_NOT_SUP
<C>	trans_data	A_ELP_LAN_NOT_SUP

History: 26.09.01 ENZ Initial

4.26.9 ACI946: successful read of EF LP

Description: set language code of +CLAN

Variants:

<A>...<C>

Preamble:

<A>ACI945A
<B>ACI945B
<C>ACI945C

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |                              |         SIM_READ_REQ         |
      |                              *=============================>*
(2)   |                              |         SIM_READ_CNF         |
      |                              *<=============================*
(3)   |          ACI_CMD_IND         |                              |
      |           (msg: OK)          |                              |
      *<=============================*                              |
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_LP
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(2) SIM_READ_CNF		
	datafield	SIM_LP
	cause	SIM_NO_ERROR
	length	NUM_5
	trans_data	A_LP_FIELD
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 26.09.01 ENZ Initial

4.26.10 ACI947: Unknown Error at read of EF LP

Description: set language code of +CLAN

Preamble:

ACI945A

```
     APL                            ACI                            PS
      |                              |                              |
(1)   |                              |         SIM_READ_REQ         |
      |                              *=============================>*
(2)   |                              |         SIM_READ_CNF         |
      |                              *<=============================*
(3)   |          ACI_CMD_IND         |                              |
      |         (msg: ERROR)         |                              |
      *<=============================*                              |
      |                              |                              |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_LP
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(2) SIM_READ_CNF		
	datafield	SIM_LP
	cause	SIM_CAUSE_OTHER_ERROR
	length	NUM_5
	trans_data	A_LP_FIELD
(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 26.09.01 ENZ Initial

4.26.11 ACI948: occur error of read EF ELP after query command +CLAN

Description: query language code of +CLAN

Variants:

<A>...<C>

Preamble:

ACI001

```
     APL                           ACI                           PS
      |                             |                             |
(1)   |         ACI_CMD_REQ         |                             |
      |        (cmd: +CLAN)         |                             |
      *===========================> *                             |
(2)   |                             |        SIM_READ_REQ         |
      |                             *===========================> *
(3)   |                             |        SIM_READ_CNF         |
      |                             *<=========================== *
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLAN_Q)
	cmd_seq	C_PLUS_CLAN_Q
(2) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_ELP
	length	NOT_PRESENT_8BIT
	max_length	NUM_20

(3) SIM_READ_CNF		
	datafield	SIM_ELP
<A>	cause	SIM_CAUSE_UNKN_FILE_ID
<B>	cause	SIM_CAUSE_UNKN_FILE_ID
<C>	cause	SIM_NO_ERROR
	length	NUM_18
<A>	trans_data	A_ELP_FIELD
<B>	trans_data	A_ELP_LAN_NOT_SUP
<C>	trans_data	A_ELP_LAN_NOT_SUP

History: 26.09.01 ENZ Initial

4.26.12 ACI949: successful read of EF LP after query command +CLAN

Description: query language code of +CLAN

Variants:
<A>...<C>

Preamble:
<A>ACI948A
<B>ACI948B
<C>ACI948C

```
     APL                           ACI                          PS
      |                             |                            |
(1)   |                             |        SIM_READ_REQ        |
      |                             *==========================> *
(2)   |                             |        SIM_READ_CNF        |
      |                             *<========================== *
(3)   |          ACI_CMD_IND        |                            |
      |       (msg: +CLAN:de..)     |                            |
      *<=========================== *                            |
(4)   |          ACI_CMD_IND        |                            |
      |           (msg: OK)         |                            |
      *<=========================== *                            |
      |                             |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_LP
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(2) SIM_READ_CNF		
	datafield	SIM_LP
	cause	SIM_NO_ERROR
	length	NUM_5
	trans_data	A_LP_FIELD

(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_ar)
	cmd_seq	M_PLUS_CLAN_ar
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 26.09.01 ENZ Initial

4.26.13 ACI950: default language is selected after fail read of EF LP

Description: query language code of +CLAN

Variants:

<A>...<C>

Preamble:

ACI948A
ACI948B
ACI948C

```
     APL                           ACI                            PS
      |                             |                             |
(1)   |                             |        SIM_READ_REQ         |
      |                             *===========================> *
(2)   |                             |        SIM_READ_CNF         |
      |                             *<=========================== *
(3)   |          ACI_CMD_IND        |                             |
      |      (msg: +CLAN:en..)      |                             |
      *<=========================== *                             |
(4)   |          ACI_CMD_IND        |                             |
      |           (msg: OK)         |                             |
      *<=========================== *                             |
      |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) SIM_READ_REQ		
	source	SRC_MMI
	offset	NUM_0
	datafield	SIM_LP
	length	NOT_PRESENT_8BIT
	max_length	NUM_5
(2) SIM_READ_CNF		
	datafield	SIM_LP
<A>	cause	SIM_CAUSE_UNKN_FILE_ID
<B>	cause	SIM_CAUSE_UNKN_FILE_ID
<C>	cause	SIM_NO_ERROR
	length	NUM_5
<A>	trans_data	A_LP_FIELD
<B>	trans_data	A_LP_LAN_NOT_SUP
<C>	trans_data	A_LP_LAN_NOT_SUP

(3) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CLAN_en)
	cmd_seq	M_PLUS_CLAN_en
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 26.09.01 ENZ Initial

4.26.14 ACI951: Change Pin by SS string

Description:

Preamble:

ACI001

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |       (cmd: AT%ALS=)       |                            |
     *===========================>*                            |
(2)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(3)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CLIR=2)      |                            |
     *===========================>*                            |
(4)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(5)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+COLP=1)      |                            |
     *===========================>*                            |
(6)  |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
(7)  |        ACI_CMD_REQ         |                            |
     |      (cmd: ATD**04*…)      |                            |
     *===========================>*                            |
(8)  |                            |     SIM_CHANGE_PIN_REQ     |
     |                            *===========================>*
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	
	NUM_ELEMENTS(C_PERCENT_ALS_OFF)	

	cmd_seq	C_PERCENT_ALS_OFF
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON
(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_CHPIN)
	cmd_seq	C_D_CHPIN
(8) SIM_CHANGE_PIN_REQ		
	source	SRC_MMI
	old_pin	A_PIN_1234
	new_pin	A_PIN_4321
	pin_id	PHASE_2_PIN_1

History: 04.06.02 KGT Initial

4.26.15 ACI952: Change Pin by SS string, new PIN differs from verify new PIN

Description:

Preamble:

ACI001

```
      APL                          ACI                          PS
       |                            |                            |
(1)    |        ACI_CMD_REQ         |                            |
       |      (cmd: AT%ALS=)        |                            |
       *==========================> *                            |
(2)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<========================== *                            |
(3)    |        ACI_CMD_REQ         |                            |
       |     (cmd: AT+CLIR=2)       |                            |
       *==========================> *                            |
(4)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<========================== *                            |
(5)    |        ACI_CMD_REQ         |                            |
       |     (cmd: AT+COLP=1)       |                            |
       *==========================> *                            |
(6)    |        ACI_CMD_IND         |                            |
       |         (msg: OK)          |                            |
       *<========================== *                            |
(7)    |        ACI_CMD_REQ         |                            |
       |     (cmd: ATD**04*…)       |                            |
       *==========================> *                            |
(8)    |        ACI_CMD_IND         |                            |
       |       (msg: ERROR)         |                            |
       *<========================== *                            |
       |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PERCENT_ALS_OFF)
	cmd_seq	C_PERCENT_ALS_OFF
(2) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CLIR_SUP)
	cmd_seq	C_PLUS_CLIR_SUP
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(5) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_COLP_ON)
	cmd_seq	C_PLUS_COLP_ON

(6) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK
(7) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_D_CHPIN)
	cmd_seq	C_D_CHPIN_FAIL
(8) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_ERROR)
	cmd_seq	M_ERROR

History: 04.06.02 KGT Initial

4.26.16 ACI955: +CNUM

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

```
    APL                         ACI                         PS
     |                           |                           |
(1)  |        ACI_CMD_REQ        |                           |
     |      (cmd: AT+CNUM?)      |                           |
     *==========================>*                           |
(2)  |                           |    SIM_READ_RECORD_REQ    |
     |                           *==========================>*
(3)  |                           |    SIM_READ_RECORD_CNF    |
     |                           *<==========================*
(4)  |        ACI_CMD_IND        |                           |
     |     (msg: +CNUM:...)      |                           |
     *<==========================*                           |
(5)  |        ACI_CMD_IND        |                           |
     |         (msg: OK)         |                           |
     *<==========================*                           |
     |                           |                           |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CNUM)
	cmd_seq	C_PLUS_CNUM
(2) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	MAX_DATAS
(3) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN

	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_1
	length	LDATA_MSISDN
	linear_data	DATA_MSISDN
(4) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CNUM)
	cmd_seq	M_PLUS_CNUM
(5) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History:	07.06.02	KGT	Initial

4.26.17 ACI956: +CNUM, 2 MSISDN available

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CNUM?)      |                            |
     *===========================>*                            |
(2)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(3)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(4)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(5)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(6)  |         ACI_CMD_IND        |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(7)  |         ACI_CMD_IND        |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(8)  |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

		cmd_len	NUM_ELEMENTS(C_PLUS_CNUM)
		cmd_seq	C_PLUS_CNUM
(2)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_MSISDN
		record	NUM_1
		length	MAX_DATAS
(3)	SIM_READ_RECORD_CNF		
		datafield	SIM_MSISDN
		cause	SIM_NO_ERROR
		record	NUM_1
		max_record	NUM_2
		length	LDATA_MSISDN
		linear_data	DATA_MSISDN
(4)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_MSISDN
		record	NUM_2
		length	LDATA_MSISDN
(5)	SIM_READ_RECORD_CNF		
		datafield	SIM_MSISDN
		cause	SIM_NO_ERROR
		record	NUM_2
		max_record	NUM_2
		length	LDATA_MSISDN
		linear_data	DATA_MSISDN
(6)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PLUS_CNUM)
		cmd_seq	M_PLUS_CNUM
(7)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_PLUS_CNUM)
		cmd_seq	M_PLUS_CNUM
(8)	ACI_CMD_IND		
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History: 08.06.02 KGT Initial

4.26.18 ACI957: +CNUM, 4 MSISDN available

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |        ACI_CMD_REQ         |                            |
     |      (cmd: AT+CNUM?)       |                            |
     *===========================>*                            |
(2)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *==========================>*
(3)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<==========================*
(4)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *==========================>*
(5)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<==========================*
(6)  |        ACI_CMD_IND         |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(7)  |        ACI_CMD_IND         |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(8)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *==========================>*
(9)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<==========================*
(10) |                            |    SIM_READ_RECORD_REQ     |
     |                            *==========================>*
(11) |                            |    SIM_READ_RECORD_CNF     |
     |                            *<==========================*
(12) |        ACI_CMD_IND         |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(13) |        ACI_CMD_IND         |                            |
     |      (msg: +CNUM:...)      |                            |
     *<===========================*                            |
(14) |        ACI_CMD_IND         |                            |
     |         (msg: OK)          |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CNUM)
	cmd_seq	C_PLUS_CNUM
(2) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	MAX_DATAS
(3) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_NO_ERROR
	record	NUM_1

max_record	NUM_4
length	LDATA_MSISDN
linear_data	DATA_MSISDN

(4) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_MSISDN
record	NUM_2
length	LDATA_MSISDN

(5) SIM_READ_RECORD_CNF

datafield	SIM_MSISDN
cause	SIM_NO_ERROR
record	NUM_2
max_record	NUM_4
length	LDATA_MSISDN
linear_data	DATA_MSISDN2

(6) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CNUM)
cmd_seq	M_PLUS_CNUM

(7) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
cmd_seq	M_PLUS_CNUM2

(8) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_MSISDN
record	NUM_3
length	LDATA_MSISDN

(9) SIM_READ_RECORD_CNF

datafield	SIM_MSISDN
cause	SIM_NO_ERROR
record	NUM_3
max_record	NUM_4
length	LDATA_MSISDN
linear_data	DATA_MSISDN3

(10) SIM_READ_RECORD_REQ

source	SRC_MMI
datafield	SIM_MSISDN
record	NUM_4
length	LDATA_MSISDN

(11) SIM_READ_RECORD_CNF

datafield	SIM_MSISDN
cause	SIM_NO_ERROR
record	NUM_4
max_record	NUM_4
length	LDATA_MSISDN
linear_data	DATA_MSISDN

(12) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
cmd_seq	M_PLUS_CNUM2

(13) ACI_CMD_IND

cmd_len	NUM_ELEMENTS(M_PLUS_CNUM)
cmd_seq	M_PLUS_CNUM

(14) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.06.02 KGT Initial

4.26.19 ACI958: +CNUM, 2 MSISDN with CCP available: FAILS ! CCD can't decode ??

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

```
    APL                           ACI                           PS
     |                             |                             |
(1)  |         ACI_CMD_REQ         |                             |
     |       (cmd: AT+CNUM?)       |                             |
     *===========================>*                             |
(2)  |                             |     SIM_READ_RECORD_REQ     |
     |                             *===========================>*
(3)  |                             |     SIM_READ_RECORD_CNF     |
     |                             *<===========================*
(4)  |                             |     SIM_READ_RECORD_REQ     |
     |                             *===========================>*
(5)  |                             |     SIM_READ_RECORD_CNF     |
     |                             *<===========================*
(6)  |                             |     SIM_READ_RECORD_REQ     |
     |                             *===========================>*
(7)  |                             |     SIM_READ_RECORD_CNF     |
     |                             *<===========================*
(8)  |                             |     SIM_READ_RECORD_REQ     |
     |                             *===========================>*
(9)  |                             |     SIM_READ_RECORD_CNF     |
     |                             *<===========================*
(10) |         ACI_CMD_IND         |                             |
     |       (msg: +CNUM:...)      |                             |
     *<===========================*                             |
(11) |         ACI_CMD_IND         |                             |
     |       (msg: +CNUM:...)      |                             |
     *<===========================*                             |
(12) |         ACI_CMD_IND         |                             |
     |          (msg: OK)          |                             |
     *<===========================*                             |
     |                             |                             |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_PLUS_CNUM)
	cmd_seq	C_PLUS_CNUM

(2) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_1
	length	MAX_DATAS
(3) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_2
	length	LDATA_MSISDN
	linear_data	DATA_MSISDN4
(4) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CCP
	record	NUM_1
	length	MAX_CCP_LEN
(5) SIM_READ_RECORD_CNF		
	datafield	SIM_CCP
	cause	SIM_NO_ERROR
	record	NUM_1
	max_record	NUM_2
	length	LDATA_CCP
	linear_data	DATA_CCP
(6) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_MSISDN
	record	NUM_2
	length	LDATA_MSISDN
(7) SIM_READ_RECORD_CNF		
	datafield	SIM_MSISDN
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_2
	length	LDATA_MSISDN
	linear_data	DATA_MSISDN5
(8) SIM_READ_RECORD_REQ		
	source	SRC_MMI
	datafield	SIM_CCP
	record	NUM_2
	length	MAX_CCP_LEN
(9) SIM_READ_RECORD_CNF		
	datafield	SIM_CCP
	cause	SIM_NO_ERROR
	record	NUM_2
	max_record	NUM_2
	length	LDATA_CCP2
	linear_data	DATA_CCP2
(10) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
	cmd_seq	M_PLUS_CNUM2

(11) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
	cmd_seq	M_PLUS_CNUM2
(12) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 08.06.02 KGT Initial

4.26.20 ACI959: +CNUM, 2 MSISDN with CCP available

Description:

Mobile originated emergency call establishment

Preamble:

ACI030

```
    APL                          ACI                          PS
     |                            |                            |
(1)  |         ACI_CMD_REQ        |                            |
     |       (cmd: AT+CNUM?)      |                            |
     *===========================>*                            |
(2)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(3)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(4)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(5)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(6)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(7)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(8)  |                            |    SIM_READ_RECORD_REQ     |
     |                            *===========================>*
(9)  |                            |    SIM_READ_RECORD_CNF     |
     |                            *<===========================*
(10) |         ACI_CMD_IND        |                            |
     |       (msg: +CNUM:...)     |                            |
     *<===========================*                            |
(11) |         ACI_CMD_IND        |                            |
     |       (msg: +CNUM:...)     |                            |
     *<===========================*                            |
(12) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     *<===========================*                            |
     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value

(13)	ACI_CMD_REQ		
		cmd_src	CMD_SRC_EXT
		cmd_len	NUM_ELEMENTS(C_PLUS_CNUM)
		cmd_seq	C_PLUS_CNUM
(14)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_MSISDN
		record	NUM_1
		length	MAX_DATAS
(15)	SIM_READ_RECORD_CNF		
		datafield	SIM_MSISDN
		cause	SIM_NO_ERROR
		record	NUM_1
		max_record	NUM_2
		length	LDATA_MSISDN
		linear_data	DATA_MSISDN4
(16)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_CCP
		record	NUM_1
		length	MAX_CCP_LEN
(17)	SIM_READ_RECORD_CNF		
		datafield	SIM_CCP
		cause	SIM_NO_ERROR
		record	NUM_1
		max_record	NUM_2
		length	LDATA_CCP2
		linear_data	DATA_CCP2
(18)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_MSISDN
		record	NUM_2
		length	LDATA_MSISDN
(19)	SIM_READ_RECORD_CNF		
		datafield	SIM_MSISDN
		cause	SIM_NO_ERROR
		record	NUM_2
		max_record	NUM_2
		length	LDATA_MSISDN
		linear_data	DATA_MSISDN5
(20)	SIM_READ_RECORD_REQ		
		source	SRC_MMI
		datafield	SIM_CCP
		record	NUM_2
		length	MAX_CCP_LEN
(21)	SIM_READ_RECORD_CNF		
		datafield	SIM_CCP
		cause	SIM_NO_ERROR
		record	NUM_2
		max_record	NUM_2
		length	LDATA_CCP3
		linear_data	DATA_CCP3

(22) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
	cmd_seq	M_PLUS_CNUM2
(23) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_PLUS_CNUM2)
	cmd_seq	M_PLUS_CNUM2
(24) ACI_CMD_IND		
	cmd_len	NUM_ELEMENTS(M_OK)
	cmd_seq	M_OK

History: 11.06.02 KGT Initial

4.26.21 ACI999: ATA without incoming call

Description:

Answer a non existing incoming call, must return with ERROR. The second plain "AT" is to check a living AT Command Interpreter. Test it with GPRS stack, too !

Preamble:

ACI001

```
    APL                          ACI                          PS
 (1) |         ACI_CMD_REQ        |                            |
     |         (cmd: ATA)         |                            |
     *==========================> *                            |
 (2) |         ACI_CMD_IND        |                            |
     |        (msg: ERROR)        |                            |
     * <==========================*                            |
 (3) |         ACI_CMD_REQ        |                            |
     |          (cmd: AT)         |                            |
     *==========================> *                            |
 (4) |         ACI_CMD_IND        |                            |
     |          (msg: OK)         |                            |
     * <==========================*                            |

     |                            |                            |
```

Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	NUM_ELEMENTS(C_A)
	cmd_seq	C_A
(2) ACI_CMD_IND		
		cmd_len
	NUM_ELEMENTS(M_ERROR)	
		cmd_seq M_ERROR
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT

	cmd_len	NUM_ELEMENTS(C_AT)	
	cmd_seq	C_AT	
(4) ACI_CMD_IND			
		cmd_len	NUM_ELEMENTS(M_OK)
		cmd_seq	M_OK

History:	04.02.03	SKA	Initial