Technical Document

GSM FAX & DATA SERVICES

TEST SPECIFICATION

ACI

Document Number:	8411.417.98.100
Version:	0.2
Status:	Draft
Approval Authority:	
Creation Date:	1999-Okt-05
Last changed:	2015-Mar-08 by XGUTTEFE
File Name:	acimm.doc

Important Notice

Texas Instruments Incorporated and/or its subsidiaries (TI) reserve the right to make corrections, modifications, enhancements, improvements, and other changes to its products, software and services at any time and to discontinue any product, software or service without notice. Customers should obtain the latest relevant information during product design and before placing orders and should verify that such information is current and complete.

All products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment. TI warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are used to the extent TI deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI products, software and/or services. To minimize the risks associated with customer products and applications, customers should provide adequate design, testing and operating safeguards.

Any access to and/or use of TI software described in this document is subject to Customers entering into formal license agreements and payment of associated license fees. TI software may solely be used and/or copied subject to and strictly in accordance with all the terms of such license agreements.

Customer acknowledges and agrees that TI products and/or software may be based on or implement industry recognized standards and that certain third parties may claim intellectual property rights therein. The supply of products and/or the licensing of software does not convey a license from TI to any third party intellectual property rights and TI expressly disclaims liability for infringement of third party intellectual property rights.

TI does not warrant or represent that any license, either express or implied, is granted under any TI patent right, copyright, mask work right, or other TI intellectual property right relating to any combination, machine, or process in which TI products, software or services are used.

Information published by TI regarding third–party products, software or services does not constitute a license from TI to use such products, software or services or a warranty, endorsement thereof or statement regarding their availability. Use of such information, products, software or services may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

Change History

Date	Changed by	Approved by	Version	Status	Notes
1999-Okt-05	DAK		0.1		1
2003-May-12	XGUTTEFE		0.2	Draft	

Notes:

1. Initial version

Table of Contents

List of Figures and Tables

List of References

[ISO 9000:2000] International Organization for Standardization. Quality management systems - Fundamentals and vocabulary. December 2000

1.1 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)

[17] European digital cellular telecommunications system (Phase 2);
Terminal Adaptation Functions (TAF) for services using synchronous bearer capabilities;
(GSM 7.03, September 1994, version 4.5.1)

[18] Digital cellular telecommunications system (Phase 2);
Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Services (CBS);
(GSM 7.05, November 1996, version 4.8.0)

[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;
Part 3: Layer 3 (L3) Abstract Test Suite (ATS)
(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)

[24] MCU-DSP Interfaces for Data Applications;
Specification S844
(C. Bianconi, Texas Instruments, March 1998, version 0.1)

[25] Users Guide
6147.300.96.100; Condat GmbH

[26] Service Access Point RA
8411.100.98.100; Condat GmbH

[27] Service Access Point RLP
8411.101.98.100; Condat GmbH

[28] Service Access Point L2R
8411.102.98.100; Condat GmbH

[29] Service Access Point FAD
8411.103.98.100; Condat GmbH

[30] Service Access Point T30
8411.104.98.100; Condat GmbH

[31] Service Access Point ACI
8411.105.98.100; Condat GmbH

[32] Message Sequence Charts RLP
8411.201.98.100; Condat GmbH

[33] Message Sequence Charts L2R
8411.202.98.100; Condat GmbH

[34] Message Sequence Charts FAD
8411.203.98.100; Condat GmbH

[35] Message Sequence Charts T30
8411.204.98.100; Condat GmbH

[36] Message Sequence Charts ACI
8411.205.98.100; Condat GmbH

[37] Proposal for Fax & Data Integration; March 1998
8411.300.98.100; Condat GmbH

[38] Test Specification RLP
8411.401.98.100; Condat GmbH

[39] Test Specification L2R
8411.402.98.100; Condat GmbH

[40] Test Specification FAD
8411.403.98.100; Condat GmbH

[41] Test Specification T30
8411.404.98.100; Condat GmbH

[42] Test Specification ACI
8411.405.98.100; Condat GmbH
[43] SDL Specification RLP
8411.501.98.100; Condat GmbH
[44] SDL Specification L2R
8411.502.98.100; Condat GmbH
[45] SDL Specification FAD
8411.503.98.100; Condat GmbH
[46] SDL Specification T30
8411.504.98.100; Condat GmbH
[47] SDL Specification ACI
8411.505.98.100; Condat GmbH
[48] Technical Documentation RLP
8411.701.98.100; Condat GmbH
[49] Technical Documentation L2R
8411.702.98.100; Condat GmbH
[50] Technical Documentation FAD
8411.703.98.100; Condat GmbH
[51] Technical Documentation T30
8411.704.98.100; Condat GmbH
[52] Technical Documentation ACI
8411.705.98.100; Condat GmbH

1.2 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

1.3 Terms

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

2 Overview

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

The 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 :

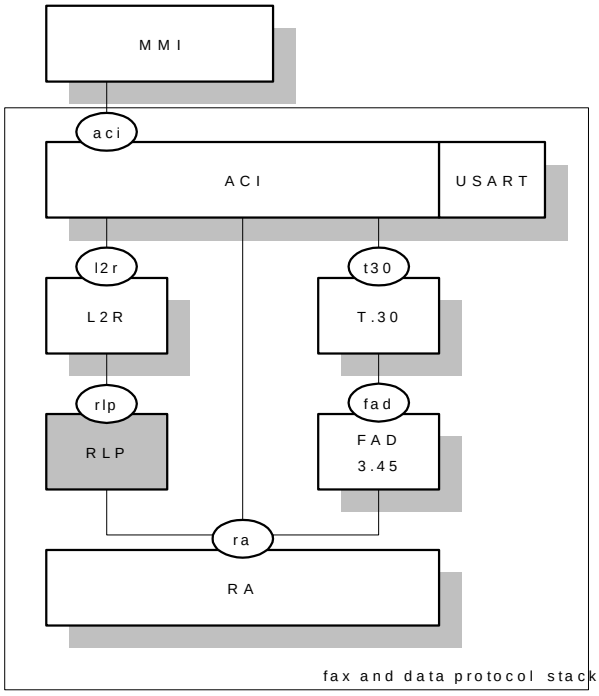


Figure 2-1: Architecture of the fax and data protocol stack

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 */

/* structure declarations */

/* 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_50 50
SHORT NUM_9600 9600
SHORT NUM_4800 4800
```

/*---"OK"—(successful operation) */

```
// Message:
STRING(M_OK, "OK" )
BYTE LM_OK 2
```

/*---"ERROR"—(error result code) */

```
// Message:
STRING(M_ERROR, "ERROR" )
BYTE LM_ERROR 5
```

/*---"+CREG"—(CREG_T) */

```
// Command:
STRING(C_CREG_T, "AT+CREG=?" )
BYTE LC_CREG_T 9
// Message:
STRING(M_CREG_T, "+CREG: (0,1)" )
BYTE LM_CREG_T 12
```

/*---"+CREG"—(CREG_Q) */

```
// Command:
STRING(C_CREG_Q, "AT+CREG?" )
BYTE LC_CREG_Q 8
// Message:
STRING(M_CREG_Q0, "+CREG: 0,0" )
STRING(M_CREG_Q1, "+CREG: 1,0" )
BYTE LM_CREG_Q 10
```

/*---"+CREG"—(CREG_S) */

```
// Command:
STRING(C_CREG_S0, "AT+CREG=0" )
STRING(C_CREG_S1, "AT+CREG=1" )
STRING(C_CREG_S9, "AT+CREG=2" )
BYTE LC_CREG_S 9
```

/*---"+COPN"—(COPN_T) */

```
// Command:
STRING(C_COPN_T, "AT+COPN=?" )
BYTE LC_COPN_T 9
```

/*---"+COPN"—(COPN) */

```
// Command:
STRING(C_COPN, "AT+COPN" )
BYTE LC_COPN 7
// Message:
STRING(M_COPN0, "+COPN: \"26202\",\"D-ZWEI PRIVAT\"" )
STRING(M_COPN1, "+COPN: \"00101\",\"Test Network\"" )
```

```
STRING(M_COPN2, "+COPN: \"22222\",\"Test Net 222\"" )
STRING(M_COPN3, "+COPN: \"23203\",\"A max.\"" )
STRING(M_COPN4, "+COPN: \"23201\",\"A1\"" )
BYTE LM_COPN0 30
BYTE LM_COPN1 29
BYTE LM_COPN2 23
BYTE LM_COPN3 19

/*---------------------------------------  fields ---------------------------------------------------- */

/*---------------------------------------  arrays ---------------------------------------------------- */

/*---------------------------------------  structures ------------------------------------------------ */
```

4 TEST CASES

4.1 Routing (internal) (ACIMM001 – ACIMM10)

4.1.1 ACIMM001:

Description:

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 (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 (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 (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 Network registration info (ACIMM011 – ACIMM020)

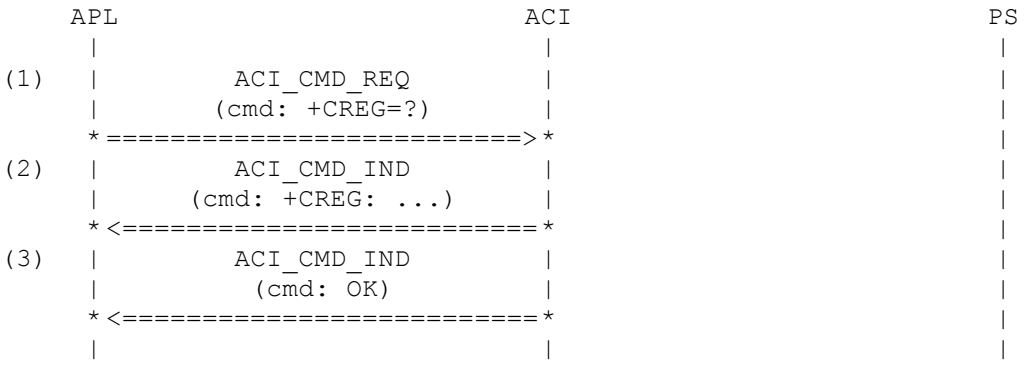
4.2.1 ACIMM011: Test "+CREG=?"

Description:

Network registration info, list of supported types

Preamble:

ACIMM001



Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_CREG_T
	cmd_seq	C_CREG_T
(2) ACI_CMD_IND		
	cmd_len	LM_CREG_T
	cmd_seq	M_CREG_T
(3) ACI_CMD_IND		
	cmd_len	LM_OK
	cmd_seq	M_OK

History: 22.10.99 DAK Initial

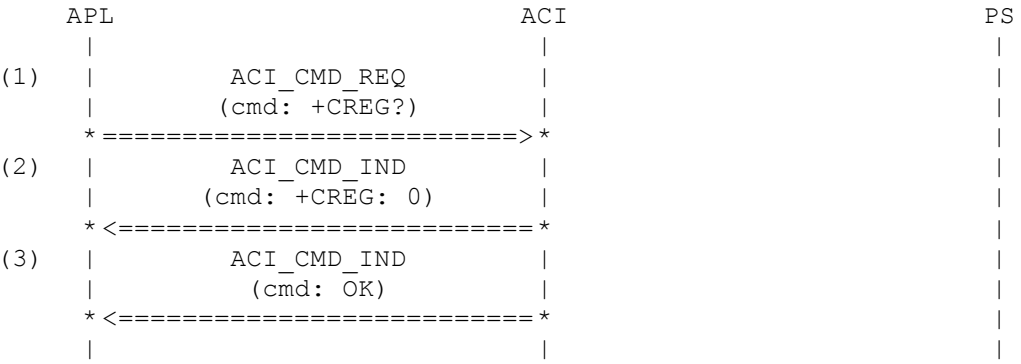
4.2.2 ACIMM012: Test "+CREG?"

Description:

Network registration info, testing initial settings

Preamble:

ACIMM001



Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_CREG_Q
	cmd_seq	C_CREG_Q
(2) ACI_CMD_IND		
	cmd_len	LM_CREG_Q
	cmd_seq	M_CREG_Q0
(3) ACI_CMD_IND		
	cmd_len	LM_OK
	cmd_seq	M_OK

History: 22.10.99 DAK Initial

4.2.3 ACIMM013: Test "+CREG=..."

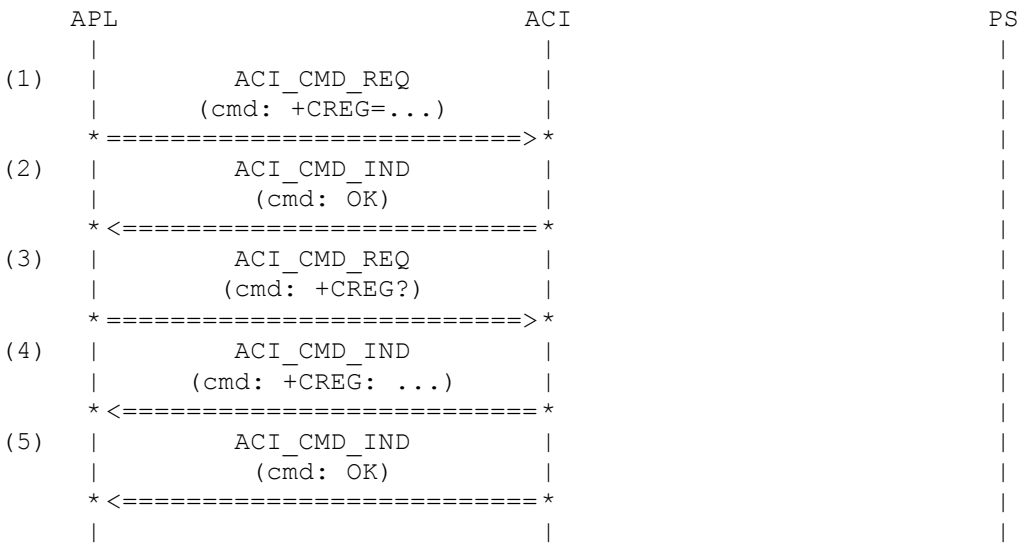
Description:

Network registration info, setting modes and test whether modes are setted

Preamble:

ACIMM001

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



Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_CREG_S
<A>	cmd_seq	C_CREG_S0
<B>	cmd_seq	C_CREG_S1
(2) ACI_CMD_IND		
	cmd_len	LM_OK
	cmd_seq	M_OK
(3) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_CREG_Q
	cmd_seq	C_CREG_Q
(4) ACI_CMD_IND		
	cmd_len	LM_CREG_Q
<A>	cmd_seq	M_CREG_Q0
<B>	cmd_seq	M_CREG_Q1
(5) ACI_CMD_IND		
	cmd_len	LM_OK
	cmd_seq	M_OK

History:	23.10.99	DAK	Initial

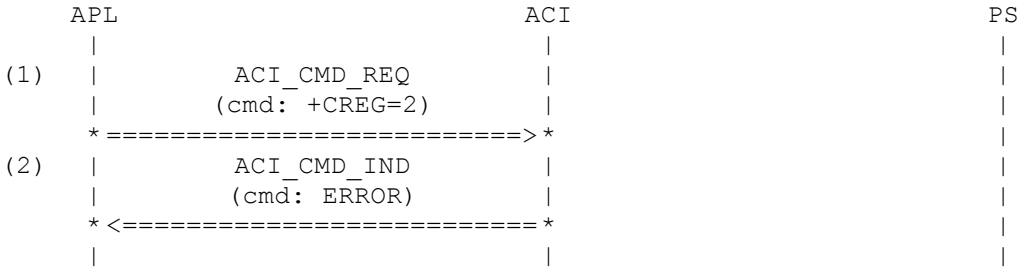
4.2.4 ACIMM014: Test "+CREG=2"

Description:

Network registration info, setting of illegal modes

Preamble:

ACIMM001



Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_CREG_S
	cmd_seq	C_CREG_S9
(2) ACI_CMD_IND		
	cmd_len	LM_ERROR
	cmd_seq	M_ERROR

History: 23.10.99 DAK Initial

4.3 Operator selection (ACIMM021 – ACIMM030)

4.4 Read operator names (ACIMM031 – ACIMM040)

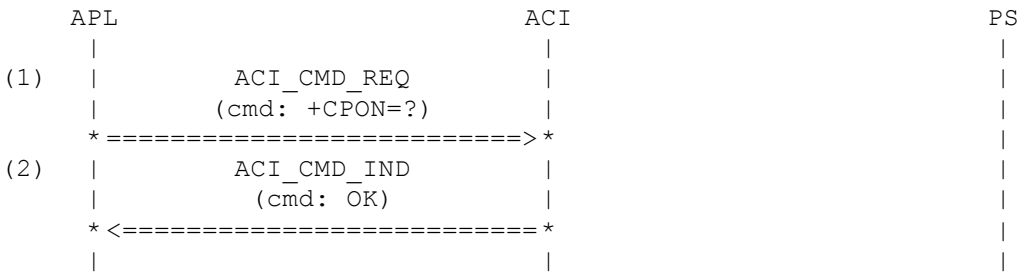
4.4.1 ACIMM031: Test "+COPN=?"

Description:

Read operator names

Preamble:

ACIMM001



Parametrization:

Primitive	Parameter	Value

(1) ACI_CMD_REQ

cmd_src	CMD_SRC_EXT
cmd_len	LC_COPN_T
cmd_seq	C_COPN_T

(2) ACI_CMD_IND

cmd_len	LM_OK
cmd_seq	M_OK

History: 23.10.99 DAK Initial

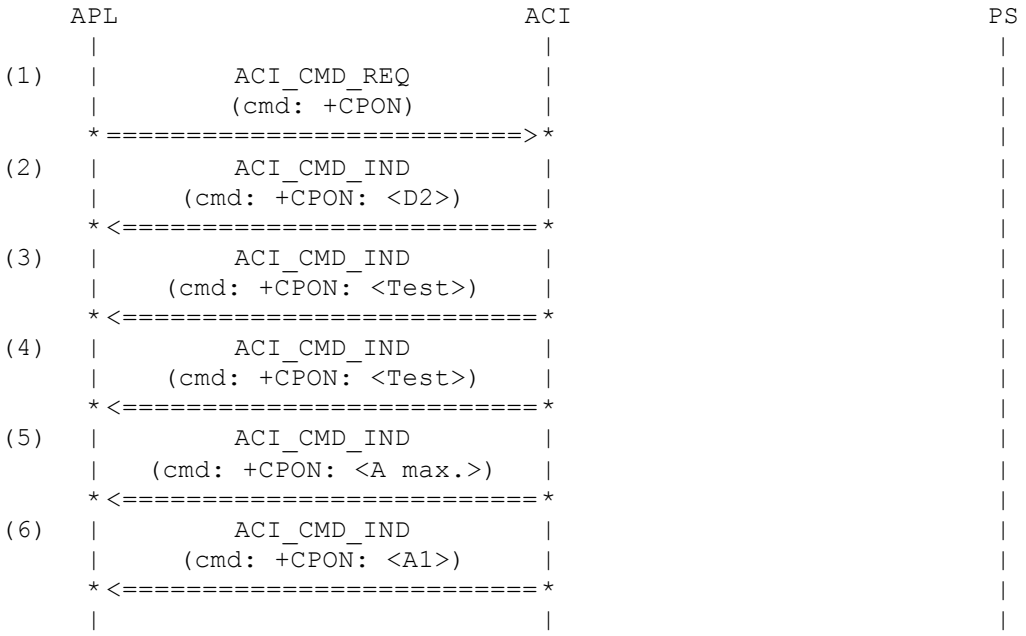
4.4.2 ACIMM032: Test "+COPN"

Description:

Read operator names

Preamble:

ACIMM001



Parametrization:

Primitive	Parameter	Value
(1) ACI_CMD_REQ		
	cmd_src	CMD_SRC_EXT
	cmd_len	LC_COPN
	cmd_seq	C_COPN
(2) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED
(3) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED
(4) ACI_CMD_IND		
	cmd_len	NOT_USED
	cmd_seq	NOT_USED

(5) ACI_CMD_IND			
		cmd_len	NOT_USED
		cmd_seq	NOT_USED
(6) ACI_CMD_IND			
		cmd_len	NOT_USED
		cmd_seq	NOT_USED
History:	23.10.99	DAK	Initial

Appendices

A. Acronyms

DS-WCDMA	Direct Sequence/Spread Wideband Code Division Multiple Access

B. Glossary

International Mobile Telecommunication 2000 (IMT-2000/ITU-2000)	Formerly referred to as FPLMTS (Future Public Land-Mobile Telephone System), this is the ITU's specification/family of standards for 3G. This initiative provides a global infrastructure through both satellite and terrestrial systems, for fixed and mobile phone users. The family of standards is a framework comprising a mix/blend of systems providing global roaming. <URL: http://www.imt-2000.org/>