Mobile Application Part Interface (MAPI) Specification

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Abstract:

This document is a Specification containing technical details concerning the implementation of the Mobile Application Part Interface (MAPI) for OpenSS7. It contains recommendations on software architecture as well as platform and system applicability of the Mobile Application Part Interface (MAPI). It provides abstraction of the Mobile Application Part (MAP) interface to these components as well as providing a basis for Mobile Application Part control for other Mobile Application Part protocols.

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Preface

Notice

Abstract

This document is a Specification containing technical details concerning the implementation of the Mobile Application Part Interface (MAPI) for OpenSS7. It contains recommendations on software architecture as well as platform and system applicability of the Mobile Application Part Interface (MAPI).

This document specifies a Mobile Application Part Interface (MAPI) Specification in support of the OpenSS7 Mobile Application Part (MAP) protocol stacks. It provides abstraction of the Mobile Application Part interface to these components as well as providing a basis for Mobile Application Part control for other Mobile Application Part protocols.

Purpose

The purpose of this document is to provide technical documentation of the Mobile Application Part Interface (MAPI). This document is intended to be included with the OpenSS7 STREAMS software package released by *OpenSS7 Corporation*. It is intended to assist software developers, maintainers and users of the Mobile Application Part Interface (MAPI) with understanding the software architecture and technical interfaces that are made available in the software package.

Intent

It is the intent of this document that it act as the primary source of information concerning the Mobile Application Part Interface (MAPI). This document is intended to provide information for writers of OpenSS7 Mobile Application Part Interface (MAPI) applications as well as writers of OpenSS7 Mobile Application Part Interface (MAPI) Users.

Audience

The audience for this document is software developers, maintainers and users and integrators of the Mobile Application Part Interface (MAPI). The target audience is developers and users of the OpenSS7 SS7 stack.

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[1] `http://www.openss7.org/repos/tarballs/openss7-1.1.7.20141001.tar.bz2`

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```
$Log: mapi.texi,v $
Revision 1.1.2.2  2011-02-07 02:21:40  brian
- updated manuals

Revision 1.1.2.1  2009-06-21 10:53:58  brian
- added files to new distro
```

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As with most open source projects, this project would not have been possible without the valiant efforts and productive software of the Free Software Foundation, the Linux Kernel Community, and the open source software movement at large.

1 Introduction

This document specifies a STREAMS-based kernel-level instantiation of the 3GPP GSM/UMTS TS.29002 Mobile Application Part (MAP) service definition. The Mobile Application Part Interface (MAPI) enables the user of a mobile application service to access and use a wide variety of conforming mobile application service providers without specific knowledge of the provider's protocol. The service interface is designed to support any operation class of transaction protocol. This interface only specifies access to mobile application layer service providers, and does not address issues concerning mobile application layer management, protocol performance, and performance analysis tools.

This specification assumes that the reader is familiar with the 3GPP GSM/UTMS reference points and protocol stacks, Mobile Application Part services, and STREAMS.

1.1 Related Documentation

- **3GPP TS 29.002 Mobile Application Part (MAP)**
- **3GPP TS 29.202**
- **1993 ITU-T Q.771 Recommendation**
- **System V Interface Definition, Issue 2 – Volume 3**
- **CCITT Recommendation X.200**
- **CCITT Recommendation X.201**
- System V Interface Definition, Issue 2 - Volume 3

1.1.1 Role

This document specifies an interface that supports the service provided by the Mobile Applications Part (MAP) specification for 3GPP GSM/UMTS as described in 3GPP TS 29.002. These specifications are targeted for use by developers and testers of protocol modules that require Mobile Applications Part services.

1.2 Definitions, Acronyms, Abbreviations

Application Context
Object Identifier
Calling Party
The Calling Party.

Called Party
The Called Party.

Operations Class
One of 5 ISO/OSI Transport Protocol Classes.

MAP Mobile Applications Part

TCAP Transaction Capabilities Application Part

SCCP Service Connection Control Part

MTP Message Transfer Part

TR Transaction Sub-Layer

TC	Component Sub-Layer
IMSI	International Mobile Station Identifier
MSISDN	Mobile Station ISDN Directory Number (E.164)
ITU	International Telecommunications Union
ITU-T	International Telecommunications Union – Telecom Sector
OSI	Open Systems Interconnect
ISO	International Organization for Standardization
MAP User	A user of the Mobile Application Part (MAP) Interface.
MAP Provider	A provider of the Mobile Application Part (MAP) Interface.
MAPI	The Mobile Application Part (MAP) Interface.
MS	Mobile Station.
Components	Transaction components as defined in ITU-T Recommendation Q.771.
QoS	Quality of Service
STREAMS	A communication services development facility first available with UNIX System V Release 3.

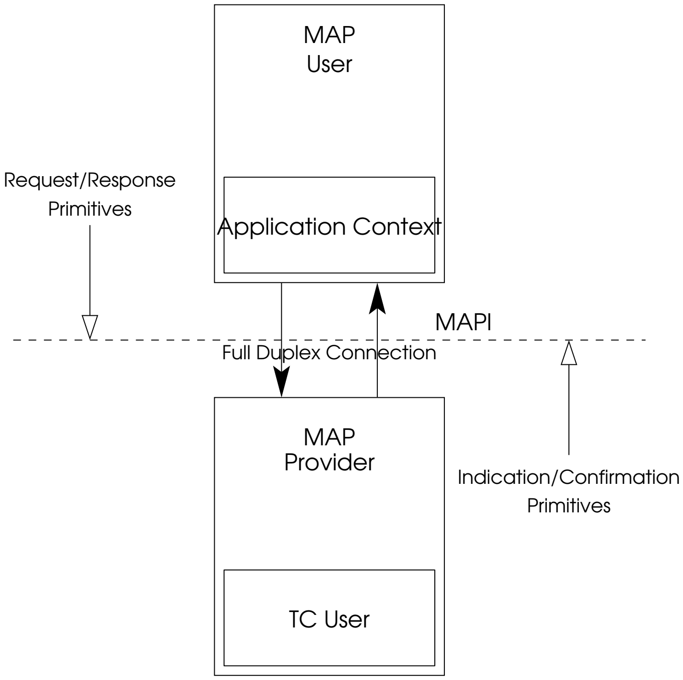
2 The Mobile Application Layer

The Mobile Application Layer provides the means to manage the operation of a mobile network. It is responsible for the routing and management of data exchange between the MAP-User entities.

2.1 Model of the MAPI

The MAPI defines the services provided by the MAP layer to the MAP-User at the boundary between the MAP layer and the MAP layer user entity. The interface consists of a set of primitives defined as STREAMS messages that provide access to the MAP layer services, and are transferred between the MAP user entity and the MAP provider. These primitives are of two types: ones that originate from the MAP user, and others that originate from the MAP provider. The primitives that originate from the MAP user make requests to the MAP provider, or respond to an event of the MAP provider. The primitives that originate from the MAP provider are either confirmation of a request or are indications to the MAP user that the event has occurred. *Figure 1* shows the model of the MAPI. (See Modelling Principles in 3GPP TS 29.002 V6.6.0.)

Figure 1 – *Module of the MAP Interface*



The MAPI allows the MAP provider to be configured with any MAP user (such as an HLR, MSC or SGSN application) that also conforms to the MAPI. A MAP user can also be a user program that conforms to the MAPI and accesses the MAP provider using '`putmsg()`' and '`getmsg()`' system calls.[1]

[1] See Section "putmsg(2s)" in *The UNIX Manual Pages*, also see Section "getmsg(2s)" in *The UNIX Manual Pages*.

2.2 MAP Services

The features of the MAP are defined in terms of the services provided by the MAP provider, and the individual primitives that may flow between the MAP users and the MAP provider.

The services provided by the MAP are based on a number of application contexts corresponding to the 3GPP TS 29.002 Mobile Application Part application contexts. In addition, the MAP supports services for local management.

- Local Management
- Common Services
- Mobility Services

2.2.1 Local Management

The MAP specifications also define a set of local management functions that apply to all application contexts. These services have local significance only.

Tables 1 and 2 summarizes the MAPI service primitives by their state and service.

2.2.2 Common Services

Table X. Common Services

Service	Invoker	Performer
MAP_OPEN		
MAP_DELIM		
MAP_CLOSE		
MAP_UABORT	User	User
MAP_PABORT	Provider	User
MAP_NOTICE		
MAP_STC1		
MAP_STC2		
MAP_STC3		
MAP_STC4		

2.2.3 Specific Services

Table 3. Specific Services

Service	Invoker	Performer
MAP_ACTSS	MSC	VLR
	VLR	HLR
MAP_ACTTM	HLR	VLR or SGSN
MAP_ALERTSC	HLR	SMS-IWMSC
MAP_ANYMOD	SCF	HLR
	PNA	VLR or SGSN
MAP_ANYSUB	SCF	HLR
MAP_AUTH	VLR	MSC
MAP_AUTHFAIL	VLR or SGSN	HLR
MAP_CANCLOC	HLR	VLR or SGSN
MAP_CKIEMI	VLR	MSC

	MSC or SGSN	EIR
MAP_DEACTSS	MSC	VLR
	VLR	HLR
MAP_DEACTTM	HLR	VLR or SGSN
MAP_DELSUBD	HLR	VLR or SGSN
MAP_ERASECC	MSC	VLR
	VLR	HLR
MAP_ERASESS	MSC	VLR
	VLR	HLR
MAP_FAILURE	GGSN	HLR
MAP_FAS	MSC-A	MSC-B
MAP_FCKSSIND	HLR	VLR
MAP_FGRCSIG	Anchor MSC	Relay MSC
MAP_MTFSMS	SMS-GMSC	MSC or SGSN
MAP_MOFSMS	MSC	SMS-IWMSC
MAP_GETPASS	HLR	VLR
	VLR	MSC
MAP_INFORMSC	HLR	SMS-GMSC
MAP_INSSUBSD	HLR	VLR or SGSN
MAP_INTERGSS	MSC	VLR
	VLR	HLR
MAP_ISTALERT	VMSC or GMSC	HLR
MAP_ISTCMD	HLR	VMSC or GMSC
MAP_MMEVENT	VLR or SGSN	SCF
MAP_MSGPRSPRES	HLR	GGSN
MAP_SUBSDATAMOD	HLR	SCF
MAP_PREPGC	Anchor MSC	Relay MSC
MAP_PREPHO	MSC-A	MSC-B
MAP_PREPSH	MSC-B	MSC-A
MAP_PROCAS	MSC	VLR
MAP_PROCGC	Relay MSC	Anchor MSC
MAP_PROCUSS	MSC	VLR
	VLR	HLR
MAP_PROVRN	HLR	VLR
MAP_PROVSLOC	GMLC	VMSC or SGSN
MAP_PROVSUBI	VLR	SGSN
MAP_PURGEMS	VLR or SGSN	HLR
MAP_RDYSM	MSC	VLR
	VLR or SGSN	HLR
MAP_REGCC	MSC	VLR
	VLR	HLR
MAP_REGPW	MSC	VLR
	VLR	HLR
MAP_REGSS	MSC	VLR
MAP_REMUSRFREE	HLR	VLR
MAP_SMDELIVSTAT	SMS-GMSC	HLR
MAP_RESET	HLR	VLR or SGSN
MAP_RESTORE	VLR	HLR
MAP_SENDGCEND	Relay MSC	Anchor MSC

MAP_SENDEND	MSC-B	MSC-A
MAP_SENDAUTHI	VLR or SGSN	HLR
MAP_SENDIMSI	VLR	MSC
MAP_SENDID	VLR	old VLR
MAP_SENDSMSRI	SMS-GMSC	HLR
MAP_SENDGPRSRI	GGSN	HLR
MAP_SENDLCSRI	GMLC	HLR
MAP_SENDRI	GMSC or SCF	HLR or NPLR
MAP_SETREP	HLR	VLR
MAP_STATUS	VLR	HLR
MAP_SUBLOCREP	VMSC or SGSN	GMLC
MAP_USSDNTFY	SCF	HLR
	HLR	VLR
	VLR	MSC
MAP_USSDREQ	SCF	HLR
	HLR	VLR
	VLR	MSC
MAP_UDGPRSLOC	SGSN	HLR
MAP_UDLOC	VLR	HLR

2.3 Service Categories

2.3.1 Mobility Management

2.3.1.1 Location Management Services

Service	**Invoker**	**Performer**
MAP_UDLOC	VLR	HLR
MAP_CANCLOC	HLR	VLR or SGSN
MAP_SENDID	VLR	old VLR
MAP_PURGEMS	VLR or SGSN	HLR
MAP_UDGPRSLOC	SGSN	HLR
MAP_MMEVENT	VLR or SGSN	SCF

2.3.1.2 Paging and Search

Service	**Invoker**	**Performer**
MAP_PAGE	VLR	MSC
MAP_SEARCH	VLR	MSC

2.3.1.3 Access Management Services

Service	**Invoker**	**Performer**
MAP_PROCAS	MSC	VLR

2.3.1.4 Handover Services

Service	**Invoker**	**Performer**
MAP_PREPHO	MSC-A	MSC-B
MAP_SENDEND	MSC-B	MSC-A
MAP_PROCAS	MSC-B	MSC-A

MAP_FAS	MSC-A	MSC-B
MAP_PREPSH	MSC-B	MSC-A
MAP_ALLOCHN	MSC	VLR
MAP_SENDHOREP	VLR	MSC-B

2.3.1.5 Authentication Management Services

Service	**Invoker**	**Performer**
MAP_AUTH	VLR	MSC
MAP_SENDAUTHI	VLR or SGSN	HLR
MAP_AUTHFAIL	VLR or SGSN	HLR

2.3.1.6 Security Management Services

Service	**Invoker**	**Performer**
MAP_SETCM	VLR	MSC

2.3.1.7 IEMI Managment Services

Service	**Invoker**	**Performer**
MAP_CKIEMI	VLR	MSC
	MSC or SGSN	EIR
MAP_GETIEMI	VLR	MSC

2.3.1.8 Subscriber Management Services

Service	**Invoker**	**Performer**
MAP_INSSUBSD	HLR	VLR or SGSN
MAP_DELSUBD	HLR	VLR or SGSN

2.3.1.9 Identity Management Services

Service	**Invoker**	**Performer**
MAP_PROVIMSI	VLR	MSC
MAP_FNEWIMSI	VLR	MSC

2.3.1.10 Fault Recovery Services

Service	**Invoker**	**Performer**
MAP_RESET	HLR	VLR or SGSN
MAP_FCKSSIND	HLR	VLR
MAP_RESTORE	VLR	HLR

2.3.1.11 Subscriber Information Services

Service	**Invoker**	**Performer**
MAP_ANYQRY	SCF	HLR or GMLC or NPLR
MAP_PROVSUBI	VLR	SGSN
MAP_ANYSUB	SCF	HLR
MAP_ANYMOD	SCF	HLR
	PNA	VLR or SGSN
MAP_SUBSDATAMOD	HLR	SCF

2.3.2 Operation and Maintenance

2.3.2.1 Subscriber Tracing Services

Service	**Invoker**	**Performer**
MAP_ACTTM	HLR	VLR or SGSN
MAP_DEACTTM	HLR	VLR or SGSN
MAP_TRACESA	VLR	MSC

2.3.2.2 Miscellaneous Operation and Maintenance Services

Service	**Invoker**	**Performer**
MAP_SENDIMSI	VLR	MSC

2.3.3 Call Handling

2.3.3.1 Call Handling Services

Service	**Invoker**	**Performer**
MAP_SENDRI	GMSC or SCF	HLR or NPLR
MAP_PROVRN	HLR	VLR
MAP_RESUME	VMSC	GMSC
MAP_PREPGC	Anchor MSC	Relay MSC
MAP_PROCGC	Relay MSC	Anchor MSC
MAP_FGRCSIG	Anchor MSC	Relay MSC
MAP_SENDGCEND	Relay MSC	Anchor MSC
MAP_SETREP	HLR	VLR
MAP_STATUS	VLR	HLR
MAP_REMUSRFREE	HLR	VLR
MAP_ISTALERT	VMSC or GMSC	HLR
MAP-ISTCMD	HLR	VMSC or GMSC

2.3.4 Supplementary Service

2.3.4.1 Supplementary Service Services

Service	**Invoker**	**Performer**
MAP_REGSS	MSC	VLR
MAP_ERASESS	MSC	VLR
	VLR	HLR
MAP_ACTSS	MSC	VLR
	VLR	HLR
MAP_DEACTSS	MSC	VLR
	VLR	HLR
MAP_INTERGSS	MSC	VLR
	VLR	HLR
MAP_REGPW	MSC	VLR
	VLR	HLR
MAP_GETPASS	HLR	VLR
	VLR	MSC
MAP_PROCUSS	MSC	VLR
	VLR	HLR
MAP_USSDREQ	SCF	HLR
	HLR	VLR

	VLR	MSC
MAP_USSDNTFY	SCF	HLR
	HLR	VLR
	VLR	MSC
MAP_SSINV	MSC or HLR	SCF
MAP_REGCC	MSC	VLR
	VLR	HLR
MAP_ERASECC	MSC	VLR
	VLR	HLR

2.3.5 SMS Management Services

2.3.5.1 Short Message Service Management Services

Service	Invoker	Performer
MAP_SENDSMSRI	SMS-GMSC	HLR
MAP_MOFSMS	MSC	SMS-IWMSC
MAP_SMDELIVSTAT	SMS-GMSC	HLR
MAP_RDYSM	MSC	VLR
MAP_RDYSM	VLR or SGSN	HLR
MAP_ALERTSC	HLR	SMS-IWMSC
MAP_INFORMSC	HLR	SMS-GMSC
MAP_SENDMTSMSI	MSC	VLR
MAP_SENDMOSMSI	MSC	VLR
MAP_MTFSMS	SMS-GMSC	MSC or SGSN

2.3.6 Network-Requested PDP Context Activation

2.3.6.1 Network-Requested PDP Context Activation Services

Service	Invoker	Performer
MAP_SENDGPRSRI	GGSN	HLR
MAP_FAILURE	GGSN	HLR
MAP_MSGPRSPRES	HLR	GGSN

2.3.7 Location Service Management

2.3.7.1 Location Service Management Services

Service	Invoker	Performer
MAP_SENDLCSRI	GMLC	HLR
MAP_PROVSLOC	GMLC	VMSC or SGSN
MAP_SUBLOCREP	VMSC or SGSN	GMLC

2.4 MAP User Entities

2.4.1 Mobile Switching Centre (MSC) Service Sets

Table X. MSC performed services.

Service	Invoker	Performer
MAP_PAGE	VLR	MSC
MAP_SEARCH	VLR	MSC
MAP_SENDHOREP	VLR	MSC
MAP_AUTH	VLR	MSC
MAP_SETCM	VLR	MSC
MAP_CKIEMI	VLR	MSC
MAP_GETIEMI	VLR	MSC
MAP_PROVIMSI	VLR	MSC
MAP_FNEWIMSI	VLR	MSC
MAP_TRACESA	VLR	MSC
MAP_SENDIMSI	VLR	MSC
MAP_ISTCMD	HLR	MSC
MAP_GETPASS	VLR	MSC
MAP_USSDREQ	VLR	MSC
MAP_USSDNTFY	VLR	MSC
MAP_MTFSMS	SMS-GMSC	MSC
MAP_PROVSLOC	GMLC	MSC

Table X. MSC invoked services.

Service	Invoker	Performer
MAP_PROCAS	MSC	VLR
MAP_CKIEMI	MSC	EIR
MAP_ALLOCHN	MSC	VLR
MAP_RESUME	MSC	GMSC
MAP_ISTALERT	MSC	HLR
MAP_REGSS	MSC	VLR
MAP_ERASESS	MSC	VLR
MAP_ACTSS	MSC	VLR
MAP_DEACTSS	MSC	VLR
MAP_INTERGSS	MSC	VLR
MAP_REGPW	MSC	VLR
MAP_PROCUSS	MSC	VLR
MAP_SSINV	MSC	SCF
MAP_REGCC	MSC	VLR
MAP_ERASECC	MSC	VLR
MAP_MOFSMS	MSC	SMS-IWMSC
MAP_RDYSM	MSC	VLR
MAP_SENDMTSMSI	MSC	VLR
MAP_SENDMOSMSI	MSC	VLR
MAP_SUBLOCREP	MSC	GMLC

Table X. MSC peer services.

Service	Invoker	Performer
MAP_PREPHO	MSC-A	MSC-B
MAP_SENDEND	MSC-B	MSC-A
MAP_PROCAS	MSC-B	MSC-A

MAP_FAS	MSC-A	MSC-B
MAP_PREPSH	MSC-B	MSC-A
MAP_PREPGC	Anchor MSC	Relay MSC
MAP_PROCGC	Relay MSC	Anchor MSC
MAP_FGRCSIG	Anchor MSC	Relay MSC
MAP_SENDGCEND	Relay MSC	Anchor MSC

2.4.2 Home Location Register (HLR) Service Sets

Table 1. HLR performed services.

Service	Invoker	Performer
MAP_UDLOC	VLR	HLR
MAP_PURGEMS	VLR or SGSN	HLR
MAP_UDGPRSLOC	SGSN	HLR
MAP_SENDAUTHI	VLR or SGSN	HLR
MAP_AUTHFAIL	VLR or SGSN	HLR
MAP_RESTORE	VLR	HLR
MAP_ANYQRY	SCF	HLR
MAP_ANYSUB	SCF	HLR
MAP_ANYMOD	SCF	HLR
MAP_SENDRI	GMSC or SCF	HLR
MAP_STATUS	VLR	HLR
MAP_ISTALERT	VMSC or GMSC	HLR
MAP_ERASESS	VLR	HLR
MAP_ACTSS	VLR	HLR
MAP_DEACTSS	VLR	HLR
MAP_INTERGSS	VLR	HLR
MAP_REGPW	VLR	HLR
MAP_PROCUSS	VLR	HLR
MAP_REGCC	VLR	HLR
MAP_ERASECC	VLR	HLR
MAP_SENDSMSRI	SMS-GMSC	HLR
MAP_SMDELIVSTAT	SMS-GMSC	HLR
MAP_RDYSM	VLR or SGSN	HLR
MAP_SENDGPRSRI	GGSN	HLR
MAP_FAILURE	GGSN	HLR
MAP_USSDREQ	SCF	HLR
MAP_SENDLCSRI	GMLC	HLR
MAP_USSDNTFY	SCF	HLR

Table 2. HLR invoked services.

Service	Invoker	Performer
MAP_CANCLOC	HLR	VLR or SGSN
MAP_INSSUBSD	HLR	VLR or SGSN
MAP_DELSUBD	HLR	VLR or SGSN
MAP_RESET	HLR	VLR or SGSN
MAP_FCKSSIND	HLR	VLR

MAP_SUBSDATAMOD	HLR	SCF
MAP_ACTTM	HLR	VLR or SGSN
MAP_DEACTTM	HLR	VLR or SGSN
MAP_PROVRN	HLR	VLR
MAP_SETREP	HLR	VLR
MAP_REMUSRFREE	HLR	VLR
MAP_ISTCMD	HLR	VMSC or GMSC
MAP_GETPASS	HLR	VLR
MAP_USSDREQ	HLR	VLR
MAP_USSDNTFY	HLR	VLR
MAP_SSINV	HLR	SCF
MAP_ALERTSC	HLR	SMS-IWMSC
MAP_INFORMSC	HLR	SMS-GMSC
MAP_MSGPRSPRES	HLR	GGSN

2.4.3 Visitor Location Register (VLR) Service Sets

Table 3. VLR performed services.

Service	**Invoker**	**Performer**
MAP_CANCLOC	HLR	VLR
MAP_PROCAS	MSC	VLR
MAP_ALLOCHN	MSC	VLR
MAP_INSSUBSD	HLR	VLR
MAP_DELSUBD	HLR	VLR
MAP_SENDID	VLR	old VLR
MAP_RESET	HLR	VLR
MAP_FCKSSIND	HLR	VLR
MAP_ANYMOD	PNA	VLR
MAP_ACTTM	HLR	VLR
MAP_DEACTTM	HLR	VLR
MAP_PROVRN	HLR	VLR
MAP_SETREP	HLR	VLR
MAP_REMUSRFREE	HLR	VLR
MAP_REGSS	MSC	VLR
MAP_ERASESS	MSC	VLR
MAP_ACTSS	MSC	VLR
MAP_DEACTSS	MSC	VLR
MAP_INTERGSS	MSC	VLR
MAP_REGPW	MSC	VLR
MAP_GETPASS	HLR	VLR
MAP_PROCUSS	MSC	VLR
MAP_USSDREQ	HLR	VLR
MAP_USSDNTFY	HLR	VLR
MAP_REGCC	MSC	VLR
MAP_ERASECC	MSC	VLR
MAP_RDYSM	MSC	VLR
MAP_SENDMTSMSI	MSC	VLR
MAP_SENDMOSMSI	MSC	VLR

Table 4. VLR invoked services.

Service	Invoker	Performer
MAP_UDLOC	VLR	HLR
MAP_SENDID	VLR	old VLR
MAP_PURGEMS	VLR	HLR
MAP_MMEVENT	VLR	SCF
MAP_PAGE	VLR	MSC
MAP_SEARCH	VLR	MSC
MAP_SENDHOREP	VLR	MSC-B
MAP_AUTH	VLR	MSC
MAP_SENDAUTHI	VLR	HLR
MAP_AUTHFAIL	VLR	HLR
MAP_SETCM	VLR	MSC
MAP_CKIEMI	VLR	MSC
MAP_GETIEMI	VLR	MSC
MAP_PROVIMSI	VLR	MSC
MAP_FNEWIMSI	VLR	MSC
MAP_RESTORE	VLR	HLR
MAP_PROVSUBI	VLR	SGSN
MAP_TRACESA	VLR	MSC
MAP_SENDIMSI	VLR	MSC
MAP_STATUS	VLR	HLR
MAP_ERASESS	VLR	HLR
MAP_ACTSS	VLR	HLR
MAP_DEACTSS	VLR	HLR
MAP_INTERGSS	VLR	HLR
MAP_REGPW	VLR	HLR
MAP_GETPASS	VLR	MSC
MAP_PROCUSS	VLR	HLR
MAP_USSDREQ	VLR	MSC
MAP_USSDNTFY	VLR	MSC
MAP_REGCC	VLR	HLR
MAP_ERASECC	VLR	HLR
MAP_RDYSM	VLR	HLR

2.4.4 Equipment Identity Register (EIR) Service Sets

Table X. EIR performed services.

Service	Invoker	Performer
MAP_CKIEMI	MSC or SGSN	EIR

2.4.5 Serving GPRS Support Node (SGSN) Service Sets

Table X. SGSN performed services.

Service	Invoker	Performer
MAP_CANCLOC	HLR	SGSN
MAP_INSSUBSD	HLR	SGSN

MAP_DELSUBD	HLR	SGSN
MAP_RESET	HLR	SGSN
MAP_PROVSUBI	VLR	SGSN
MAP_ANYMOD	PNA	SGSN
MAP_ACTTM	HLR	SGSN
MAP_DEACTTM	HLR	SGSN
MAP_MTFSMS	SMS-GMSC	SGSN
MAP_PROVSLOC	GMLC	SGSN

Table X. SGSN invoked services.

Service	Invoker	Performer
MAP_PURGEMS	SGSN	HLR
MAP_UDGPRSLOC	SGSN	HLR
MAP_MMEVENT	SGSN	SCF
MAP_SENDAUTHI	SGSN	HLR
MAP_AUTHFAIL	SGSN	HLR
MAP_CKIEMI	SGSN	EIR
MAP_RDYSM	SGSN	HLR
MAP_SUBLOCREP	SGSN	GMLC

2.4.6 Gateway GPRS Support Node (GGSN) Service Sets

Table X. GGSN performed services.

Service	Invoker	Performer
MAP_MSGPRSPRES	HLR	GGSN

Table X. GGSN invoked services.

Service	Invoker	Performer
MAP_SENDGPRSRI	GGSN	HLR
MAP_FAILURE	GGSN	HLR

2.4.7 Interworking MSC (IWMSC) for Short Message Service Service Sets

Table X. SMS-IWMSC performed services.

Service	Invoker	Performer
MAP_MOFSMS	MSC	SMS-IWMSC
MAP_ALERTSC	HLR	SMS-IWMSC

2.4.8 Gateway MSC (GMSC) for Short Message Service Service Sets

Table X. SMS-GMSC performed services.

Service	Invoker	Performer
MAP_INFORMSC	HLR	SMS-GMSC

Table X. SMS-GMSC invoked services.

Service	Invoker	Performer
MAP_SENDSMSRI	SMS-GMSC	HLR
MAP_SMDELIVSTAT	SMS-GMSC	HLR
MAP_MTFSMS	SMS-GMSC	MSC or SGSN

2.4.9 Gateway Mobile Location Center (GMLC) Service Sets

Table X. GMLC performed services.

Service	Invoker	Performer
MAP_ANYQRY	SCF	GMLC
MAP_SUBLOCREP	VMSC or SGSN	GMLC

Table X. GMLC invoked services.

Service	Invoker	Performer
MAP_SENDLCSRI	GMLC	HLR
MAP_PROVSLOC	GMLC	VMSC or SGSN

3 MAPI Services Definition

This chapter describes the services of the MAP primitives. Time-sequence diagrams that illustrate the sequence of primitives is included. (Conventions for the time-sequence diagrams are defined in ITU-T X.210). The format of the primitives will be defined later in the document.

3.1 Local Management Services Definition

The services defined in this section are outside the scope of the international standards. These services apply to all applications contexts and specific service primitives. They are invoked for the initialization or de-initialization of a stream connected to the MAP provider. They are also used to manage options supported by the MAP provider and to report information on the supported parameter values.

3.1.1 MAP Information Reporting Service

This service provides information on the options supported by the MAP provider.

- `MAP_INFO_REQ`: This primitive requests that the MAP provider return the values of all the supported protocol parameters. This request may be invoked during any phase.
- `MAP_INFO_ACK`: This primitive is in response to the `MAP_INFO_REQ` primitive and returns the values of the supported protocol parameters to the MAP user.

The sequence of primitives for mobile application part information management is shown in Figure 2.

Figure 2. Sequence of Primitives;
MAP Information Reporting Serivce

3.1.2 MAP User Bind Service

The service allows a network address and application contexts to be associated with a stream. It allows the MAP user to negotiate the number of dialogues that can remain outstanding for that MAP user (a dialogue is considered unacknowledged while it is awaiting a corresponding response or abort from the MAP user). This service also defines a mechanism that allows a stream (bound to a network address of the MAP user) to be reserved to handle remote initiated dialogues only. This stream is referred to as the listener stream.

- `MAP_BIND_REQ`: This primitive requests that the MAP user be bound to a particular network address and application context, and negotiate the number of allowable outstanding open indications for that address.
- `MAP_BIND_ACK`: This primitive is in response to the `MAP_BIND_REQ` primitive and indicates to the user that the specified MAP user has been bound to a network address and application context.

The sequence of primitives for the MAP user bind service is shown in Figure 3.

Figure 2. Sequence of Primitives;
MAP User Bind Service

3.1.3 MAP User Unbind Service

This service allows the MAP user to be unbound from a network address and application context.

- `MAP_UNBIND_REQ`: This primitive requests that the MAP user be unbound from the network address and application context(s) to which it was previously bound.

The sequence of primitives for MAP user unbind service is shown in Figure 4.

Figure 4. Sequence of Primitives;
MAP User Unbind & Receipt Acknowledgement Services

3.1.4 Receipt Acknowledgement Service

- `MAP_OK_ACK`: This primitive indicates to the MAP user that the previous MAP user originated primitive was received successfully by the MAP provider.

An example showing the sequence of primitives for successful receipt acknowledgement is depicted in Figure 4.

3.1.5 Options Management Service

This service allows the MAP user to manage the QOS parameter values and other options associated with the MAP provider.

- `MAP_OPTMGMT_REQ`: This primitive allows the MAP user to select default values for QoS parameters within the range supported by the MAP provider, and to indicate the default selection of additional options supported by the MAP provider.

Figure 5 shows the sequence of primitives for MAP options management service.

Figure 5. Sequence of Primitives;
Options Management Service.

3.1.6 Error Acknowledgement Service

- `MAP_ERROR_ACK`: This primitive indicates to the MAP user that a non-fatal error has occurred in the last MAP user originated request or response primitive (listed in Figure 6), on the stream.

Figure 6 shows the sequence of primitives for the error acknowledgement service.

Figure 6. Sequence of Primitives;
Error Acknowledgement Service.

3.2 Dialogue Handling Definition

This section describes the required MAP service primitives that define the Dialogue Handling interface.

The queue model for Dialogue Handling is discussed in more detail in CCITT X.219.

The queue module represents the operation of a MAP dialogue in the abstract by a pair of queues linking the two MAP user entities. There is one queue for each direction of information flow. Each queue represents a flow control function in one direction of transfer. The ability of a user to add objects to a queue will be determined by the behaviour of the user removing objects from that queue, and the state of the queue. The pair of queues is considered to be available for each potential MAP dialogue. Objects that are entered or removed from the queue are either as a result of interactions at the two MAP users, or as a result of MAP provider initiatives.

- A queue is empty until a dialogue object has been entered and can be returned to this state, with loss of its contents, by the MAP provider.
- Objects can be entered into a queue as a result of the actions of the source MAP user, subject to control by the MAP provider.
- Objects may also be entered into a queue by the MAP provider.
- Objects are removed from the queue under the control of the MAP user in n the same order as they were entered except:
  - if the object is of a type defined to be able to advance ahead of the preceding object (however, no object is defined to be able to advance ahead of another object of the same type), or
  - if the following object is defined to be destructive with respect to the preceding object on the queue. If necessary, the last object on the queue will be deleted to allow a destructive object to be entered – the will therefore always be added to the queue. For example, "abort" objects are defined to be destructive with respect to all other objects.

Table Y shows the ordering relationships among the queue model objects.

Table Y. Ordering Relationship Between Queue Model Objects.

Object X					
Object Y	**Open**	**Components**	**Delimiter**	**Close**	**Abort**
Open	N/A	–	–	DES	
Components	N/A	–	–	DES	
Deilmiter	N/A	–	–	DES	
Close	N/A	–	–	DES	
Abort	N/A	N/A	N/A	–	

AA Indicates that Object X is defined to be able to advance ahead of preceding Object Y.

DES Indicates that Object X is defined to be destructive with respect to the preceding Object Y.

– Indicates that Object X is neither destructive with respect to Object Y, nor able to advance ahead of Object Y.

N/A Indicates that Object X will not occur in a position succeeding Object Y in a valid state of a queue.

3.2.1 Dialogue Establishment Phase

A pair of queues is associated with a MAP dialogue between two MAP user entities when the MAP provider receives a `MAP_OPEN_REQ` primitive at one of the MAP user interfaces resulting in the "begin" object being entered into the queue. The queues will remain associated with the MAP dialogue until a `MAP_CLOSE_REQ` or *indication* primitive (resulting in an "end" object) is either entered or removed from a queue. Similarly, in the queue from the called MAP user, objects can be entered into the queue only after the "continue" object associated with the `MAP_OPEN_RES` primitive has been entered into the queue. Alternatively, the called MAP user can enter a an "end" or "abort" object into the queue instead of the "continue" object to terminate the dialogue.

The MAP dialogue establishment procedure will fail if the MAP provider is unable to establish a TCAP dialogue, or if the destination MAP user is unable to accept the `MAP_OPEN_IND`.

3.2.1.1 User Primitives for Successful MAP Dialogue Establishment

- MAP_OPEN_REQ: This primitive requests that the MAP provider establish a dialogue to the specified destination under an application context.
- MAP_OPEN_RES: This primitives requests that the MAP provider accept a previous dialogue indication.

3.2.1.2 Provider Primitives for Successful MAP Dialogue Establishment

- MAP_OPEN_IND: This primitive indicates to the MAP user that a dialogue request has been made within an application context by a user at the specified source address.
- MAP_OPEN_CON: This primitive indicates to the MAP user that a dialogue request has been confirmed on the specified responding address.

The sequence of primitives for a successful MAP dialogue establishment is defined by the time sequence diagram as shown in Figure 7. The sequence of primitives for the MAP dialogue response token value determination is shown in Figure 8 (procedures for MAP response token value determination are discussed later).

**Figure 7. Sequence of Primitives;
Successful MAP Dialogue Establishment**

**Figure 8. Sequence of Primitives;
MAP Dialogue Response Token Value Determination**

3.2.2 Dialogue Component Transfer Phase

Flow control within the MAP dialogue is performed by management of the queue capacity, and by allowing objects of certain types to be inserted to the queues as shown in Table 4.

Table 4. Flow Control Relationship Between Queued Model Objects

Object X				
Object Y	Class 1	Class 2	Class 3	Class 4
Class 1	Yes	Yes	Yes	Yes
Class 2	Yes	Yes	Yes	Yes
Class 3	Yes	Yes	Yes	Yes
Class 4	Yes	Yes	Yes	Yes

Yes The addition of Object X may prevent further addition of Object Y.

No The addition of Object X may not prevent the addition of Object Y.

3.2.2.1 User Primitives for Component Transfer

- **Service Specific Requests**: These primitives request that the MAP provider invoke a service and transfer the specified (and any subsequent) components.
- **Service Specific Responses**: These primitives request that the MAP provider return result for a service invocation and transfer the specified (and any subsequent) components.
- MAP_DELIM_IND: This primitive requests that the MAP provider deliver any accumulated components from previous service specific request or response primitives.

3.2.2.2 Provider Primitives for Component Transfer

- **Service Specific Indications**: These primitives indicate to the MAP user an invocation and the indicated (and any subsequent) components.
- **Service Specific Confirmations**: These primitives indicate to the MAP user a return result and the indicated (and any subsequent) components.
- `MAP_DELIM_IND`: This primitive indicates that the MAP provider has delivered any accumulated components belonging to the previous service specific indication or confirmation primitive.

Figure 9 shows the sequence of primitives for successful component transfer. The sequence of primitives may remain incomplete if a `MAP_ABORT` or `MAP_CLOSE` primitive occurs.

Figure 9. Sequence of Primitives;
Component Transfer.

The sequence of primitives in a successful Class 1 operation is defined in the time sequence diagram as shown in Figure 10.

Figure 10. Sequence of Primitives;
Successful Confirmation of Receipt.

The sequence of primitives as shown above may remain incomplete if a `MAP_UABORT`, `MAP_PABORT` or `MAP_CLOSE` primitive occurs (see Table 3). A MAP user must not issue a *Service Specific Response* primitive if no *Service Specific Indication* primitive for a confirmed service has been received, or if all such *Service Specific Indication* primitives have been previously confirmed. Following a `MAP_UABORT` or `MAP_PABORT`, a MAP user may not issue a *Service Specific Response* to confirm outstanding *Service Specific Indication* primitives received before the abort procedure was signalled.

Note — The witholding of confirmation of a service by a MAP user can have an effect on the attainable throughput.

The sequence of primitives for component transfer is shown in the time sequence diagram in Figure 11. This sequence of primitives may remain incomplete if a `MAP_ABORT` or `MAP_CLOSE` primitive is issued.

Figure 11. Sequence of Primitives;
Expedited Data Transfer.

3.2.3 Dialogue Termination Phase

The MAP dialogue release procedure is initialized by the insertion of an “abort” or “end” object into the queue. As shown in Table 3, the “abort” is destructive with respect to other objects in the queue, and eventually results in the emptying of queues and termination of the MAP dialogue.

The sequence of primitivies depends on the origin of the release action. The sequence of primitives may be:

1. invoked by one MAP user, with a request from that MAP user leading to an indication to the other;
2. invoked by both MAP users, with a request from each of the MAP users;
3. invoked by the MAP provider, with an indication to each of the MAP users;
4. invoked independently by one MAP user and the MAP provider, with a request from the originating MAP user and an indication to the other.

3.2.3.1 User Primitives for Dialogue Abort

- MAP_ABORT_REQ: This primitive requests that the MAP provider deny an outstanding request for an association (MAP_OPEN_IND) or abort an existing association.

3.2.3.2 Provider Primitives for Dialogue Abort

- MAP_UABORT_IND: This primitive indicates to the MAP user that either a request for association has been denied or an existing association has been terminated.
- MAP_PABORT_IND: This primitive indicates to the MAP user that either a request for association has been denied or an existing association has been terminated.

The sequence of primitives are shown in the time sequence diagrams in n Figures 16, 17, 18 and 19.

**Figure 16. Sequence of Primitives;
MAP User Invoked Abort.**

**Figure 17. Sequence of Primitives;
Simultaneous MAP User Invoked Abort.**

**Figure 18. Sequence of Primitives;
MAP Provider Invoked Abort.**

**Figure 19. Sequence of Primitives;
Simultaneous MAP User and MAP Provider Invoked Abort.**

A MAP user may reject a MAP association establishment by issuing a MAP_ABORT_REQ. The originator parameter in the MAP_UABORT_IND primitive will indicate MAP user invoked release. The sequence of events is shown in Figure 20.

**Figure 20. Sequence of Primitives;
MAP User Rejection of a MAP Association Establishment Attempt.**

If the MAP provider is unable to establish a MAP association, it indicates this to the requester by a MAP_PABORT_IND. The originator in this primitive indicates a MAP provider invoked release. This is shown in Figure 21.

**Figure 21. Sequence of Primitives;
MAP Provider Rejection of a MAP Association Establishement Attempt.**

4 MAPI Primitives

This section describes the format and parameters of the MAPI primitives (Appendix A shows the mapping of the MAPI primitives to the primitives defined in 3GPP TS 29.002 and ANSI41-D). Also, it discusses the states in which the primitive is valid, the resulting state and the acknowledgement that the primitive expects. (The state/event tables for these primitives are shown in Appendix B. The precedence tables for the MAPI primitives are shown in Appendix C.) Rules for 3GPP and ANSI conformance are described in Addendum to this document.

Tabel 4. Local Management Service Primitives.

SERVICE	PRIMITIVE	PARAMETERS
Information	`MAP_INFO_REQ`	
Reporting	`MAP_INFO_ACK`	
Bind	`MAP_BIND_REQ`	
	`MAP_BIND_ACK`	
Unbind	`MAP_UNBIND_REQ`	
Error	`MAP_ERROR_ACK`	
Success	`MAP_OK_ACK`	

Tables 5, 6 and 7 provide a summary of the MAP primitives and their parameters.

Table 5. Association Establishment MAP Service Primitives.

SERVICE	PRIMITIVE	PARAMETERS
Association	`MAP_OPEN_REQ`	(Application context name, Destination address, Destination reference, Originating address, Originating reference, Specific information)
Establishment	`MAP_OPEN_IND`	(Application context name, Destination address, Destination reference, Originating address, Originating reference, Specific information)
	`MAP_OPEN_RES`	(Application context name, Responding address, Result, Refuse-reason, Specific information)
	`MAP_OPEN_CON`	(Application context name, Responding address, Result, Refuse-reason, Specific information, Provider-error)

Table 6. Component Transfer Service Primitives.

SERVICE	PRIMITIVE	PARAMETERS
Service	MAP_*XXX*_REQ	(Specific information)
Specific	MAP_*XXX*_IND	(Specific information)
Primitives	MAP_*XXX*_RES	(Specific information)
	MAP_*XXX*_CON	(Specific information)
Delimitation	`MAP_DELIM_REQ`	(none)
	`MAP_DELIM_IND`	(none)

Table 7. Association Termination MAP Service Primitives.

SERVICE	PRIMITIVE	PARAMETERS
Association	`MAP_CLOSE_REQ`	(Release method, Specific information)

Termination	`MAP_CLOSE_IND`	(Specific information)
Assocation	`MAP_ABORT_REQ`	(User reason, Diagnostic information, Specific information)
Abort	`MAP_UABORT_IND`	(User reason, Diagnostic information, Specific information)
Abort	`MAP_PABORT_IND`	(Provider reason, Source)
Notice	`MAP_NOTICE_IND`	()

Table 8. Secure Transport Primitives.

SERVICE	**PRIMITIVE**	**PARAMETERS**
Class 1	`MAP_STC1_REQ`	
	`MAP_STC1_IND`	
Class 2	`MAP_STC2_REQ`	
	`MAP_STC2_IND`	
Class 3	`MAP_STC3_REQ`	
	`MAP_STC3_IND`	
Class 4	`MAP_STC4_REQ`	
	`MAP_STC4_IND`	

4.1 Management Primitives

These primitives appy to all protocol classes.

4.1.1 Information Request

MAP_INFO_REQ

This primitive requests the MAP provider to return the values of all supported protocol parameters (see Section 4.1.2 [Information Acknowledgement], page 32), and also the current state of the MAP provider.[1]

Format

The format of the message is one 'M_PROTO' message block and its structure is as follows:

```
typedef struct {
        ulong PRIM_type;    /* always MAP_INFO_REQ */
} MAP_info_req_t;
```

Parameters

PRIM_type:
Indicates the primitive type.

Valid States

This primitive is valid in any state where a local acknowledgement is not pending.

New State

The new state remains unchanged from the old state.

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledgements upon receipt of the pirmitive:

— **Successful:** Acknowledgement of the primitive with the MAP_INFO_ACK primitive described in Section 4.1.2 [Information Acknowledgement], page 32.

— **Non-fatal Errors:** There are no errors associated with the issuance of this primitive.

[1] The MAP_INFO_REQ and MAP_INFO_ACK primitives have no effect on the state of the MAP provider and do not appear in the state tables in Appendix B [State/Event Tables], page 389.

4.1.2 Information Acknowledgement

MAP_INFO_ACK

This primitive indicates to the MAP users any relevant protocol-dependent parameters.[1] It should be initiated in response to the `MAP_INFO_REQ` primitive described above in Section 4.1.1 [Information Request], page 31.

Format

The format of the message is one '`M_PCPROTO`' message block. The format of the '`M_PCPROTO`' message block is as follows:

```
typedef struct {
    ulong PRIM_type;        /* always MAP_INFO_ACK */
    ulong TSDU_size;        /* maximum TSDU size */
    ulong ETSDU_size;       /* maximum ETSDU size */
    ulong CDATA_size;       /* connect data size  */
    ulong DDATA_size;       /* disconnect data size */
    ulong ADDR_size;        /* address size */
    ulong ADDR_length;      /* address length */
    ulong ADDR_offset;      /* address offset */
    ulong QOS_length;       /* default QOS values length */
    ulong QOS_offset;       /* default QOS values offset */
    ulong QOS_range_length; /* QOS range length */
    ulong QOS_range_offset; /* QOS range offset */
    ulong OPTIONS_flags;    /* bit masking for options */
    ulong TIDU_size;        /* transaction interface data size */
    long  SERV_type;        /* service type */
    ulong CURRENT_state;    /* current state */
    ulong PROVIDER_type;    /* type of provider */
    ulong NODU_size;        /* optimal TSDU size */
    ulong PROTOID_length;   /* length of bound protocol ids */
    ulong PROTOID_offset;   /* offset of bound protocol ids */
    ulong MAPI_version;     /* supported MAPI version number */
} MAP_info_ack_t;
```

Parameters

PRIM_type Indicates the primitive type.

TSDU_size Specifies the maximum size (in octets) of Transaction Service User Data supported by the MAP provider.

ETSDU_size
Specifies the maximum size (in octets) of Expedited Transaction Service User Data supported by the MAP provider.

CDATA_size
Specifies the maximum number of octets of data that may be associated with a transaction initiation primitive for operations class 1, 2 and 3 operation.

DDATA_size
Specifies the maximum number of octets of data that may be associated with a transaction termination primitive for operations class 1, 2 and 3 operation.

[1]

ADDR_size
Specifies the maximum size (in decimal digits) of a network address.

ADDR_length, ADDR_offset
Specifies the length in bytes and offset from the beginning of the `M_PCPROTO` message block of the network address bound on the stream on which the `MAP_INFO_REQ` was issued (a network address is bound to a stream via a `MAP_BIND_REQ`).

QOS_length, QOS_offset
QOS_range_length, QOS_range_offset
OPTIONS_flags
TIDU_size[2]
This is the size of the MAP protocol interface data unit, and should not exceed the tunable system limit, if non-zero, for the size of a STREAMS message.

SERV_type This field specified the service type supported by the MAP provider, and is one of the following:

CURRENT_state
THis is the current state of the MAP provider.

PROVIDER_type
This field specifies additional properties specific to the MAP provider and may alter the way the MAP user communicates. MAP providers supporting the features of XTI in XPG4 and beyond must send up a version number as specified below. The following flags may be set by the provider:

`SENDZERO` This flag indicates that the MAP provider support the sending of zero-length (component-less) TSDUs.

`XPG4_1` This indicates that the MAP provider conforms to XTI in XPG4 and supports primitives `MAP_ADDR_REQ` and `MAP_ADDR_ACK`.

TODU_size
PROTOID_length, PROTOID_offset
MAPI_version

Flags

Valid States

New State

Rules

The following rules apply when the type of service is operations class 4:

— The *ETSDU_size*, *CDATA_size* and *DDATA_size* fields should be '`-2`'.

— The *TSDU_size* should be equal to the *TIDU_size*.

[2] This is the amount of user components that may be present in a single service specific primitive.

4.1.3 Bind Application Context Request

MAP_BIND_REQ

This primitive requests that the MAP provider bind a protocol address to the *stream*, negotiate the number of dialogue open indications allowed to be outstanding by the MAP provider for the specified protocol address, and activate[1] the *stream* associated with the protocol address.

Format

The format of the message is one 'M_PROTO' message block. The format of the 'M_PROTO' message block is as follows:

```
typedef struct {
    ulong PRIM_type;                /* always MAP_BIND_REQ */
    ulong ADDR_length;              /* length of protocol address */
    ulong ADDR_offset;              /* offset of protocol address */
    unsigned long DIAIND_number;    /* requested number of dialogue indications to be queued */
} MAP_bind_req_t;
```

Parameters

PRIM_type
Indicates the primitive type.

ADDR_length
The length[2] of the protocol address to be bound to the *stream*.

ADDR_offset
The offset from the beiginning of the 'M_PROTO' block where the protocol address begins. The address in the 'M_PROTO' message block is however, aligned the same as it was received from the MAP user.

DIAIND_number
[3] The requested number of connection indications[4] allowed to be outstanding by the MAP provider for the specified protocol address.

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to geenrate one of the following acknowledgements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitive:

[1] A *stream* is viewed as active when the MAP provider may receive and transmit components (Trasaction Protocol Data Units) associated with the *stream*

[2] All lengths, offsets and sizes in all structures refer to the number of bytes.

[3] This field should be ignored by those application contexts providing operations class 4 service.

[4] If the number outstanding connect indications equals *CONIND_number*, the MAP provider need not discard further incoming connect indications, but may chose to queue them internally until the number of outstanding connect indications drops below CONNIND_number.

— **Successful:** Correct acknowledgement of the primitive is indicated with the `MAP_BIND_ACK` primitive described in Section 4.1.4 [Bind Application Context Acknowledgement], page 36.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TBADADDR` This indicates that the protocol address was in an incorrect format or the address contained illegal information. It is not indended to indicate protocol errors.

`TNOADDR` This indicates that the MAP provider could not allocate an address.

`TACCES` This indicates that the user did not have proper permissions for the use of the requested address.

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

`TADDRBUSY` This indicated that the requested address is already in use.

4.1.4 Bind Application Context Acknowledgement

MAP_BIND_ACK

This primitive indicates to the MAP user that the specified protoocl address has been bound to the *stream*, that the specified number of dialogue open indications are allowed to be queued by the MAP provider for th specified protocol address, and that the *stream* associated with the specified protocol address has ben activated.

Format

The format of the message is one '`M_PCPROTO`' message block. The format of the '`M_PCPROTO`' message block is as follows:

```
typedef struct {
    long PRIM_type;         /* always MAP_BIND_ACK */
    long ADDR_length;       /* length of address -- see note in sec. 1.4 */
    long ADDR_offset;       /* offset of address */
    ulong DIAIND_number;    /* dialogue open indications to be queued */
} MAP_bind_ack_t;
```

Parameters

PRIM_type
ADDR_length
ADDR_offset
DIAIND_number

Flags

Valid States

New State

Rules

The following rules apply to the binding of the specified protocol address to the *stream*:

— If the *ADDR_length*

4.1.5 Unbind Application Context Request

MAP_UNBIND_REQ

This primitive requests that the MAP provider unbind the protocol address associated with the *stream* and deactivate the *stream*.

Format

The format of the message is one 'M_PROTO' message block. The format of the 'M_PROTO' mesage block is as follows:

```
typedef struct {
    long PRIM_type;         /* always MAP_UNBIND_REQ */
} MAP_unbind_req_t;
```

Parameters

PRIM_type:
Indicates primitive type.

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate the following acknowledgements upon receipt of the primitive and that the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Successful:** Correct acknowledgement of the primitive is indicated with the MAP_OK_ACK primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the MAP_ERROR_ACK primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

TOUTSTATE The primitive would place the MAP interface out of state.

TSYSERR A system error has occurred and the UNIX system error is indicated in the primitive.

4.1.6 Options Management Request

MAP_OPTMGMT_REQ

This primitive allows the MAP user to manage the options associated with the *stream*.

Format

The format of the message is one 'M_PROTO' message block. The format of the 'M_PROTO' message block is as follows:

```
typedef struct {
    long PRIM_type;         /* always MAP_OPTMGMT_REQ */
    long OPT_length;        /* options length */
    long OPT_offset;        /* options offset */
    long MGMT_flags;        /* flags */
} MAP_optmgmt_req_t;
```

Parameters

PRIM_type
Indicates the primitive type.

OPT_length
The length of the protocol options associated with the primitive.

OPT_offset The offset from the beginning of the 'M_PROTO' message block where the options begin. The proper alignment of options is not guaranteed. The options are, however, aligned the same as they were received from the MAP user.

MGMT_flags
The flags which define the request made by the MAP user.

Flags

T_NEGOTIATE
Negotiate and set the options with the MAP provider.

T_CHECK Check the validity of the specified options.

T_CURRENT Return the options currently in effect.

T_DEFAULT Return the default options.

Rules

For the rules governing the requests made by this primitive, see the MAP_OPTMGMT_ACK primitive described in Section 4.1.9 [Options Management Acknowledgement], page 42.

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledgements upon receipt of the primitive and that the MAP user await the acknowledgement before issuing any othe primitives:

— **Successful:** Acknowledgement of the primitive with the MAP_OPTMGMT_ACK primitive described in Section 4.1.9 [Options Management Acknowledgement], page 42.

— **Non-fatal errors:** These errors will be indicated with the MAP_ERROR_ACK primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

TACCES — This indicates that the user did not have proper permissions for the use of the requested options.

TOUTSTATE — The primitive would place the MAP interface out of state.

TBADOPT — This indicates that the options as specified were in an incorrect format, or they contained illegal information.

TBADFLAG — This indicates that the flags as specified were incorrect or illegal.

TSYSERR — A system error has occured and the UNIX system error is indicated in the primitive.

TNOTSUPPORT — This MAP provider does not support the requested flag (T_CHECK or T_CURRENT).

4.1.7 Get Protocol Address Request

MAP_ADDR_REQ

This primitive requests that the MAP provider return the local protocol address that is bound to the *stream* and the address of the remote MAP entity if a dialogue has been established.

Format

The format of the message is one 'M_PROTO' message block. The format of the 'M_PROTO' message block is as follows:

```
typedef struct {
    long PRIM_type;     /* always MAP_ADDR_REQ */
} MAP_addr_req_t;
```

Parameters

PRIM_type
Indicates the primitive type.

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Successful:** Correct acknowledgement of the primitive is indicated with the MAP_ADDR_ACK primitive described in Section 4.1.8 [Get Protocol Address Acknowledgement], page 41.

— **Non-fatal errors:** There are no errors associated with the issuance of this primitive.

4.1.8 Get Protocol Address Acknowledgement

MAP_ADDR_ACK

Format

Parameters

Flags

Valid States

New State

4.1.9 Options Management Acknowledgement

MAP_OPTMGMT_ACK

Format

Parameters

Flags

Valid States

New State

4.1.10 Error Acknowledgement

MAP_ERROR_ACK

Format

Parameters

Valid Error Codes

Valid States

New State

4.1.11 Successful Receipt Acknowledgement

MAP_OK_ACK

Format

Parameters

Valid States

New State

4.2 Association Establishment Phase

4.2.1 Association Establishment Request

MAP_OPEN_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Successful Association Establishment:**
- **Unsuccessful Association Establishment:**
- **Non-fatal errors:**

4.2.2 Association Establishment Indication

MAP_OPEN_IND

Format

Parameters

Flags

Valid States

New State

4.2.3 Association Establishment Response

MAP_OPEN_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.2.4 Association Establishment Confirmation

MAP_OPEN_CON

Format

Parameters

Flags

Valid States

New State

4.3 Component Transfer Phase

4.3.1 Component Delimitation Request

MAP_DELIM_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.3.2 Component Delimitation Indication

MAP_DELIM_IND

Format

Parameters

Flags

Valid States

New State

4.4 Association Termination Phase

4.4.1 Association Release Request

MAP_CLOSE_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.4.2 Association Release Indication

MAP_CLOSE_IND

Format

Parameters

Flags

Valid States

New State

4.4.3 Association Abort Request

MAP_ABORT_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.4.4 Association User Abort Indication

MAP_UABORT_IND

Format

Parameters

Flags

Valid States

New State

4.4.5 Association Provider Abort Indication

MAP_PABORT_IND

Format

Parameters

Flags

Valid States

New State

4.4.6 Association Notice Indication

MAP_NOTICE_IND

Format

Parameters

Flags

Valid States

New State

4.5 Secure Transport Primitives

4.5.1 Secure Transport Class 1 Request

MAP_STC1_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.5.2 Secure Transport Class 1 Indication

MAP_STC1_IND

Format

Parameters

Flags

Valid States

New State

4.5.3 Secure Transport Class 2 Request

MAP_STC2_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.5.4 Secure Transport Class 2 Indication

MAP_STC2_IND

Format

Parameters

Flags

Valid States

New State

4.5.5 Secure Transport Class 3 Request

MAP_STC3_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.5.6 Secure Transport Class 3 Indication

MAP_STC3_IND

Format

Parameters

Flags

Valid States

New State

4.5.7 Secure Transport Class 4 Request

MAP_STC4_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.5.8 Secure Transport Class 4 Indication

MAP_STC4_IND

Format

Parameters

Flags

Valid States

New State

4.6 Service Specific Primitives

4.6.1 Activate Supplementary Service Request

MAP_ACTSS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.2 Activate Supplementary Service Indication

MAP_ACTSS_IND

Format

Parameters

Flags

Valid States

New State

4.6.3 Activate Supplementary Service Response

MAP_ACTSS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.4 Activate Supplementary Service Confirmation

MAP_ACTSS_CON

Format

Parameters

Flags

Valid States

New State

4.6.5 Activate Traceec Mode Request

MAP_ACTTM_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.6 Activate Traceec Mode Indication

MAP_ACTTM_IND

Format

Parameters

Flags

Valid States

New State

4.6.7 Activate Traceec Mode Response

MAP_ACTTM_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.8 Activate Traceec Mode Confirmation

MAP_ACTTM_CON

Format

Parameters

Flags

Valid States

New State

4.6.9 Alert Service Center Request

MAP_ALERTSC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.10 Alert Service Center Indication

MAP_ALERTSC_IND

Format

Parameters

Flags

Valid States

New State

4.6.11 Alert Service Center Response

MAP_ALERTSC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.12 Alert Service Center Confirmation

MAP_ALERTSC_CON

Format

Parameters

Flags

Valid States

New State

4.6.13 Allocate Handover Number Request

MAP_ALLOCHN_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.14 Allocate Handover Number Indication

MAP_ALLOCHN_IND

Format

Parameters

Flags

Valid States

New State

4.6.15 Allocate Handover Number Response

MAP_ALLOCHN_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.16 Allocate Handover Number Confirmation

MAP_ALLOCHN_CON

Format

Parameters

Flags

Valid States

New State

4.6.17 Any Time Modification Request

MAP_ANYMOD_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.18 Any Time Modification Indication

MAP_ANYMOD_IND

Format

Parameters

Flags

Valid States

New State

4.6.19 Any Time Modification Response

MAP_ANYMOD_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.20 Any Time Modification Confirmation

MAP_ANYMOD_CON

Format

Parameters

Flags

Valid States

New State

4.6.21 Any Time Interrogation Request

MAP_ANYQRY_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.22 Any Time Interrogation Indication

MAP_ANYQRY_IND

Format

Parameters

Flags

Valid States

New State

4.6.23 Any Time Interrogation Response

MAP_ANYQRY_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.24 Any Time Interrogation Confirmation

MAP_ANYQRY_CON

Format

Parameters

Flags

Valid States

New State

4.6.25 Any Time Subscription Interrogation Request

MAP_ANYSUB_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.26 Any Time Subscription Interrogation Indication

MAP_ANYSUB_IND

Format

Parameters

Flags

Valid States

New State

4.6.27 Any Time Subscription Interrogation Response

MAP_ANYSUB_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.28 Any Time Subscription Interrogation Confirmation

MAP_ANYSUB_CON

Format

Parameters

Flags

Valid States

New State

4.6.29 Authentication Failure Report Request

MAP_AUTHFAIL_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.30 Authentication Failure Report Indication

MAP_AUTHFAIL_IND

Format

Parameters

Flags

Valid States

New State

4.6.31 Authentication Failure Report Response

MAP_AUTHFAIL_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.32 Authentication Failure Report Confirmation

MAP_AUTHFAIL_CON

Format

Parameters

Flags

Valid States

New State

4.6.33 Authenticate Request

MAP_AUTH_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.34 Authenticate Indication

MAP_AUTH_IND

Format

Parameters

Flags

Valid States

New State

4.6.35 Authenticate Response

MAP_AUTH_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.36 Authenticate Confirmation

MAP_AUTH_CON

Format

Parameters

Flags

Valid States

New State

4.6.37 Cancel Location Request

MAP_CANCLOC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.38 Cancel Location Indication

MAP_CANCLOC_IND

Format

Parameters

Flags

Valid States

New State

4.6.39 Cancel Location Response

MAP_CANCLOC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.40 Cancel Location Confirmation

MAP_CANCLOC_CON

Format

Parameters

Flags

Valid States

New State

4.6.41 Reset Request

MAP_RESET_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.42 Reset Indication

MAP_RESET_IND

Format

Parameters

Flags

Valid States

New State

4.6.43 Reset Response

MAP_RESET_CON

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.44 Reset Confirmation

MAP_RESET_RES

Format

Parameters

Flags

Valid States

New State

4.6.45 Restore Request

MAP_RESTORE_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.46 Restore Indication

MAP_RESTORE_IND

Format

Parameters

Flags

Valid States

New State

4.6.47 Restore Response

MAP_RESTORE_CON

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.48 Restore Confirmation

MAP_RESTORE_RES

Format

Parameters

Flags

Valid States

New State

4.6.49 Resume Call Handling Request

MAP_RESUME_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.50 Resume Call Handling Indication

MAP_RESUME_IND

Format

Parameters

Flags

Valid States

New State

4.6.51 Resume Call Handling Confirmation

MAP_RESUME_RES

Format

Parameters

Flags

Valid States

New State

4.6.52 Resume Call Handling Response

MAP_RESUME_CON

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.53 Search for MS Request

MAP_SEARCH_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.54 Search for MS Indication

MAP_SEARCH_IND

Format

Parameters

Flags

Valid States

New State

4.6.55 Search for MS Confirmation

MAP_SEARCH_RES

Format

Parameters

Flags

Valid States

New State

4.6.56 Search for MS Response

MAP_SEARCH_CON

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.57 Check IEMI Request

MAP_CKIEMI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.58 Check IEMI Indication

MAP_CKIEMI_IND

Format

Parameters

Flags

Valid States

New State

4.6.59 Check IEMI Response

MAP_CKIEMI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.60 Check IEMI Confirmation

MAP_CKIEMI_CON

Format

Parameters

Flags

Valid States

New State

4.6.61 Deactivate Supplementary Service Request

MAP_DEACTSS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.62 Deactivate Supplementary Service Indication

MAP_DEACTSS_IND

Format

Parameters

Flags

Valid States

New State

4.6.63 Deactivate Supplementary Service Response

MAP_DEACTSS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.64 Deactivate Supplementary Service Confirmation

MAP_DEACTSS_CON

Format

Parameters

Flags

Valid States

New State

4.6.65 Deactivate Trace Mode Request

MAP_DEACTTM_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.66 Deactivate Trace Mode Indication

MAP_DEACTTM_IND

Format

Parameters

Flags

Valid States

New State

4.6.67 Deactivate Trace Mode Response

MAP_DEACTTM_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.68 Deactivate Trace Mode Confirmation

MAP_DEACTTM_CON

Format

Parameters

Flags

Valid States

New State

4.6.69 Delete Subscriber Data Request

MAP_DELSUBD_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.70 Delete Subscriber Data Indication

MAP_DELSUBD_IND

Format

Parameters

Flags

Valid States

New State

4.6.71 Delete Subscriber Data Response

MAP_DELSUBD_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.72 Delete Subscriber Data Confirmation

MAP_DELSUBD_CON

Format

Parameters

Flags

Valid States

New State

4.6.73 Erase CC Entry Request

MAP_ERASECC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.74 Erase CC Entry Indication

MAP_ERASECC_IND

Format

Parameters

Flags

Valid States

New State

4.6.75 Erase CC Entry Response

MAP_ERASECC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.76 Erase CC Entry Confirmation

MAP_ERASECC_CON

Format

Parameters

Flags

Valid States

New State

4.6.77 Erase Supplementatry Service Request

MAP_ERASESS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.78 Erase Supplementatry Service Indication

MAP_ERASESS_IND

Format

Parameters

Flags

Valid States

New State

4.6.79 Erase Supplementatry Service Response

MAP_ERASESS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.80 Erase Supplementatry Service Confirmation

MAP_ERASESS_CON

Format

Parameters

Flags

Valid States

New State

4.6.81 Failure Report Request

MAP_FAILURE_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.82 Failure Report Indication

MAP_FAILURE_IND

Format

Parameters

Flags

Valid States

New State

4.6.83 Failure Report Response

MAP_FAILURE_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.84 Failure Report Confirmation

MAP_FAILURE_CON

Format

Parameters

Flags

Valid States

New State

4.6.85 Forward Access Signalling Request

MAP_FAS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.86 Forward Access Signalling Indication

MAP_FAS_IND

Format

Parameters

Flags

Valid States

New State

4.6.87 Forward Access Signalling Response

MAP_FAS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.88 Forward Access Signalling Confirmation

MAP_FAS_CON

Format

Parameters

Flags

Valid States

New State

4.6.89 Forward Check SS Indication Request

MAP_FCKSSIND_REQ

Format

Parameters

Flags

Valid States

New State

4.6.90 Forward Check SS Indication Indication

MAP_FCKSSIND_IND

Format

Parameters

Flags

Valid States

New State

4.6.91 Forward Check SS Indication Response

MAP_FCKSSIND_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.92 Forward Check SS Indication Confirmation

MAP_FCKSSIND_CON

Format

Parameters

Flags

Valid States

New State

4.6.93 Forward Group Call Signalling Request

MAP_FGRCSIG_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.94 Forward Group Call Signalling Indication

MAP_FGRCSIG_IND

Format

Parameters

Flags

Valid States

New State

4.6.95 Forward Group Call Signalling Response

MAP_FGRCSIG_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.96 Forward Group Call Signalling Confirmation

MAP_FGRCSIG_CON

Format

Parameters

Flags

Valid States

New State

4.6.97 Forward New IMSI Request

MAP_FNEWIMSI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.98 Forward New IMSI Indication

MAP_FNEWIMSI_IND

Format

Parameters

Flags

Valid States

New State

4.6.99 Forward New IMSI Response

MAP_FNEWIMSI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.100 Forward New IMSI Confirmation

MAP_FNEWIMSI_CON

Format

Parameters

Flags

Valid States

New State

4.6.101 Obtain IEMI Request

MAP_GETIEMI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.102 Obtain IEMI Indication

MAP_GETIEMI_IND

Format

Parameters

Flags

Valid States

New State

4.6.103 Obtain IEMI Response

MAP_GETIEMI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.104 Obtain IEMI Confirmation

MAP_GETIEMI_CON

Format

Parameters

Flags

Valid States

New State

4.6.105 Get Password Request

MAP_GETPASS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.106 Get Password Indication

MAP_GETPASS_IND

Format

Parameters

Flags

Valid States

New State

4.6.107 Get Password Response

MAP_GETPASS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.108 Get Password Confirmation

MAP_GETPASS_CON

Format

Parameters

Flags

Valid States

New State

4.6.109 Inform Service Center Request

MAP_INFORMSC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.110 Inform Service Center Indication

MAP_INFORMSC_IND

Format

Parameters

Flags

Valid States

New State

4.6.111 Inform Service Center Response

MAP_INFORMSC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.112 Inform Service Center Confirmation

MAP_INFORMSC_CON

Format

Parameters

Flags

Valid States

New State

4.6.113 Insert Subscriber Data Request

MAP_INSSUBSD_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.114 Insert Subscriber Data Indication

MAP_INSSUBSD_IND

Format

Parameters

Flags

Valid States

New State

4.6.115 Insert Subscriber Data Response

MAP_INSSUBSD_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.116 Insert Subscriber Data Confirmation

MAP_INSSUBSD_CON

Format

Parameters

Flags

Valid States

New State

4.6.117 Iterrogate Supplementary Service Request

MAP_INTERGSS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.118 Iterrogate Supplementary Service Indication

MAP_INTERGSS_IND

Format

Parameters

Flags

Valid States

New State

4.6.119 Iterrogate Supplementary Service Response

MAP_INTERGSS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.120 Iterrogate Supplementary Service Confirmation

MAP_INTERGSS_CON

Format

Parameters

Flags

Valid States

New State

4.6.121 IST Alert Request

MAP_ISTALERT_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.122 IST Alert Indication

MAP_ISTALERT_IND

Format

Parameters

Flags

Valid States

New State

4.6.123 IST Alert Response

MAP_ISTALERT_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.124 IST Alert Confirmation

MAP_ISTALERT_CON

Format

Parameters

Flags

Valid States

New State

4.6.125 IST Command Request

MAP_ISTCMD_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.126 IST Command Indication

MAP_ISTCMD_IND

Format

Parameters

Flags

Valid States

New State

4.6.127 IST Command Response

MAP_ISTCMD_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.128 IST Command Confirmation

MAP_ISTCMD_CON

Format

Parameters

Flags

Valid States

New State

4.6.129 Note MM Event Request

MAP_MMEVENT_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.130 Note MM Event Indication

MAP_MMEVENT_IND

Format

Parameters

Flags

Valid States

New State

4.6.131 Note MM Event Response

MAP_MMEVENT_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.132 Note MM Event Confirmation

MAP_MMEVENT_CON

Format

Parameters

Flags

Valid States

New State

4.6.133 Mobile Originated Forward Short Message Request

MAP_MOFSMS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.134 Mobile Originated Forward Short Message Indication

MAP_MOFSMS_IND

Format

Parameters

Flags

Valid States

New State

4.6.135 Mobile Originated Forward Short Message Response

MAP_MOFSMS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.136 Mobile Originated Forward Short Message Confirmation

MAP_MOFSMS_CON

Format

Parameters

Flags

Valid States

New State

4.6.137 Note MS Present for GRPS Request

MAP_MSGRPSPRES_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.138 Note MS Present for GRPS Indication

MAP_MSGRPSPRES_IND

Format

Parameters

Flags

Valid States

New State

4.6.139 Note MS Present for GRPS Response

MAP_MSGRPSPRES_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.140 Note MS Present for GRPS Confirmation

MAP_MSGRPSPRES_CON

Format

Parameters

Flags

Valid States

New State

4.6.141 Mobile Terminated Forward Short Message Request

MAP_MTFSMS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.142 Mobile Terminated Forward Short Message Indication

MAP_MTFSMS_IND

Format

Parameters

Flags

Valid States

New State

4.6.143 Mobile Terminated Forward Short Message Response

MAP_MTFSMS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.144 Mobile Terminated Forward Short Message Confirmation

MAP_MTFSMS_CON

Format

Parameters

Flags

Valid States

New State

4.6.145 Page Request

MAP_PAGE_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.146 Page Indication

MAP_PAGE_IND

Format

Parameters

Flags

Valid States

New State

4.6.147 Page Response

MAP_PAGE_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.148 Page Confirmation

MAP_PAGE_CON

Format

Parameters

Flags

Valid States

New State

4.6.149 Prepare Group Call Request

MAP_PREPGC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.150 Prepare Group Call Indication

MAP_PREPGC_IND

Format

Parameters

Flags

Valid States

New State

4.6.151 Prepare Group Call Response

MAP_PREPGC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.152 Prepare Group Call Confirmation

MAP_PREPGC_CON

Format

Parameters

Flags

Valid States

New State

4.6.153 Prepare Handover Request

MAP_PREPHO_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.154 Prepare Handover Indication

MAP_PREPHO_IND

Format

Parameters

Flags

Valid States

New State

4.6.155 Prepare Handover Response

MAP_PREPHO_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE`	The primitive would place the MAP interface out of state.
`TSYSERR`	A system error has occured and the UNIX System error in indicated in the primitive.

4.6.156 Prepare Handover Confirmation

MAP_PREPHO_CON

Format

Parameters

Flags

Valid States

New State

4.6.157 Prepare Subsequent Handover Request

MAP_PREPSH_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.158 Prepare Subsequent Handover Indication

MAP_PREPSH_IND

Format

Parameters

Flags

Valid States

New State

4.6.159 Prepare Subsequent Handover Response

MAP_PREPSH_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.160 Prepare Subsequent Handover Confirmation

MAP_PREPSH_CON

Format

Parameters

Flags

Valid States

New State

4.6.161 Process Access Signalling Request

MAP_PROCAS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.162 Process Access Signalling Indication

MAP_PROCAS_IND

Format

Parameters

Flags

Valid States

New State

4.6.163 Process Access Signalling Response

MAP_PROCAS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.164 Process Access Signalling Confirmation

MAP_PROCAS_CON

Format

Parameters

Flags

Valid States

New State

4.6.165 Process Group Call Signalling Request

MAP_PROCGC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.166 Process Group Call Signalling Indication

MAP_PROCGC_IND

Format

Parameters

Flags

Valid States

New State

4.6.167 Process Group Call Signalling Response

MAP_PROCGC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.168 Process Group Call Signalling Confirmation

MAP_PROCGC_CON

Format

Parameters

Flags

Valid States

New State

4.6.169 Process Unstructured SS Request

MAP_PROCUSS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.170 Process Unstructured SS Indication

MAP_PROCUSS_IND

Format

Parameters

Flags

Valid States

New State

4.6.171 Process Unstructured SS Response

MAP_PROCUSS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.172 Process Unstructured SS Confirmation

MAP_PROCUSS_CON

Format

Parameters

Flags

Valid States

New State

4.6.173 Provide IMSI Request

MAP_PROVIMSI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.174 Provide IMSI Indication

MAP_PROVIMSI_IND

Format

Parameters

Flags

Valid States

New State

4.6.175 Provide IMSI Response

MAP_PROVIMSI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.176 Provide IMSI Confirmation

MAP_PROVIMSI_CON

Format

Parameters

Flags

Valid States

New State

4.6.177 Provide Roaming Number Request

MAP_PROVRN_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.178 Provide Roaming Number Indication

MAP_PROVRN_IND

Format

Parameters

Flags

Valid States

New State

4.6.179 Provide Roaming Number Response

MAP_PROVRN_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.180 Provide Roaming Number Confirmation

MAP_PROVRN_CON

Format

Parameters

Flags

Valid States

New State

4.6.181 Provide Subscriber Location Request

MAP_PROVSLOC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.182 Provide Subscriber Location Indication

MAP_PROVSLOC_IND

Format

Parameters

Flags

Valid States

New State

4.6.183 Provide Subscriber Location Response

MAP_PROVSLOC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.184 Provide Subscriber Location Confirmation

MAP_PROVSLOC_CON

Format

Parameters

Flags

Valid States

New State

4.6.185 Provide Subscriber Information Request

MAP_PROVSUBI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.186 Provide Subscriber Information Indication

MAP_PROVSUBI_IND

Format

Parameters

Flags

Valid States

New State

4.6.187 Provide Subscriber Information Response

MAP_PROVSUBI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the MAP_OK_ACK primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the MAP_ERROR_ACK primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

TOUTSTATE The primitive would place the MAP interface out of state.

TSYSERR A system error has occured and the UNIX System error in indicated in the primitive.

4.6.188 Provide Subscriber Information Confirmation

MAP_PROVSUBI_CON

Format

Parameters

Flags

Valid States

New State

4.6.189 Purge MS Request

MAP_PURGEMS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.190 Purge MS Indication

MAP_PURGEMS_IND

Format

Parameters

Flags

Valid States

New State

4.6.191 Purge MS Response

MAP_PURGEMS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.192 Purge MS Confirmation

MAP_PURGEMS_CON

Format

Parameters

Flags

Valid States

New State

4.6.193 Ready for SM Request

MAP_RDYSM_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.194 Ready for SM Indication

MAP_RDYSM_IND

Format

Parameters

Flags

Valid States

New State

4.6.195 Ready for SM Response

MAP_RDYSM_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.196 Ready for SM Confirmation

MAP_RDYSM_CON

Format

Parameters

Flags

Valid States

New State

4.6.197 Register CC Entry Request

MAP_REGCC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.198 Register CC Entry Indication

MAP_REGCC_IND

Format

Parameters

Flags

Valid States

New State

4.6.199 Register CC Entry Response

MAP_REGCC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.200 Register CC Entry Confirmation

MAP_REGCC_CON

Format

Parameters

Flags

Valid States

New State

4.6.201 Register Password Request

MAP_REGPW_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.202 Register Password Indication

MAP_REGPW_IND

Format

Parameters

Flags

Valid States

New State

4.6.203 Register Password Response

MAP_REGPW_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.204 Register Password Confirmation

MAP_REGPW_CON

Format

Parameters

Flags

Valid States

New State

4.6.205 Register Supplementary Service Request

MAP_REGSS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.206 Register Supplementary Service Indication

MAP_REGSS_IND

Format

Parameters

Flags

Valid States

New State

4.6.207 Register Supplementary Service Response

MAP_REGSS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.208 Register Supplementary Service Confirmation

MAP_REGSS_CON

Format

Parameters

Flags

Valid States

New State

4.6.209 Remote User Free Request

MAP_REMUSRFREE_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.210 Remote User Free Indication

MAP_REMUSRFREE_IND

Format

Parameters

Flags

Valid States

New State

4.6.211 Remote User Free Response

MAP_REMUSRFREE_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.212 Remote User Free Confirmation

MAP_REMUSRFREE_CON

Format

Parameters

Flags

Valid States

New State

4.6.213 Send Identification Request

MAP_SENDID_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.214 Send Identification Indication

MAP_SENDID_IND

Format

Parameters

Flags

Valid States

New State

4.6.215 Send Identification Response

MAP_SENDID_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.216 Send Identification Confirmation

MAP_SENDID_CON

Format

Parameters

Flags

Valid States

New State

4.6.217 Set Ciphering Mode Request

MAP_SETCM_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.218 Set Ciphering Mode Indication

MAP_SETCM_IND

Format

Parameters

Flags

Valid States

New State

4.6.219 Set Ciphering Mode Response

MAP_SETCM_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.220 Set Ciphering Mode Confirmation

MAP_SETCM_CON

Format

Parameters

Flags

Valid States

New State

4.6.221 Set Reporting State Request

MAP_SETREP_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.222 Set Reporting State Indication

MAP_SETREP_IND

Format

Parameters

Flags

Valid States

New State

4.6.223 Set Reporting State Response

MAP_SETREP_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.224 Set Reporting State Confirmation

MAP_SETREP_CON

Format

Parameters

Flags

Valid States

New State

4.6.225 Report Short Message Delivery Status Request

MAP_SMDELIVSTAT_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE`	The primitive would place the MAP interface out of state.
`TSYSERR`	A system error has occured and the UNIX System error in indicated in the primitive.

4.6.226 Report Short Message Delivery Status Indication

MAP_SMDELIVSTAT_IND

Format

Parameters

Flags

Valid States

New State

4.6.227 Report Short Message Delivery Status Response

MAP_SMDELIVSTAT_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.228 Report Short Message Delivery Status Confirmation

MAP_SMDELIVSTAT_CON

Format

Parameters

Flags

Valid States

New State

4.6.229 Send Authentication Information Request

MAP_SENDAUTHI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.230 Send Authentication Information Indication

MAP_SENDAUTHI_IND

Format

Parameters

Flags

Valid States

New State

4.6.231 Send Authentication Information Response

MAP_SENDAUTHI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.232 Send Authentication Information Confirmation

MAP_SENDAUTHI_CON

Format

Parameters

Flags

Valid States

New State

4.6.233 Send End Signal Request

MAP_SENDEND_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.234 Send End Signal Indication

MAP_SENDEND_IND

Format

Parameters

Flags

Valid States

New State

4.6.235 Send End Signal Response

MAP_SENDEND_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.236 Send End Signal Confirmation

MAP_SENDEND_CON

Format

Parameters

Flags

Valid States

New State

4.6.237 Send Group Call End Signal Request

MAP_SENDGCEND_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.238 Send Group Call End Signal Indication

MAP_SENDGCEND_IND

Format

Parameters

Flags

Valid States

New State

4.6.239 Send Group Call End Signal Response

MAP_SENDGCEND_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.240 Send Group Call End Signal Confirmation

MAP_SENDGCEND_CON

Format

Parameters

Flags

Valid States

New State

4.6.241 Send Routing Information for GPRS Request

MAP_SENDGPRSRI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.242 Send Routing Information for GPRS Indication

MAP_SENDGPRSRI_IND

Format

Parameters

Flags

Valid States

New State

4.6.243 Send Routing Information for GPRS Response

MAP_SENDGPRSRI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.244 Send Routing Information for GPRS Confirmation

MAP_SENDGPRSRI_CON

Format

Parameters

Flags

Valid States

New State

4.6.245 Send Handover Report Request

MAP_SENDHOREP_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.246 Send Handover Report Indication

MAP_SENDHOREP_IND

Format

Parameters

Flags

Valid States

New State

4.6.247 Send Handover Report Response

MAP_SENDHOREP_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.248 Send Handover Report Confirmation

MAP_SENDHOREP_CON

Format

Parameters

Flags

Valid States

New State

4.6.249 Send IMSI Request

MAP_SENDIMSI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.250 Send IMSI Indication

MAP_SENDIMSI_IND

Format

Parameters

Flags

Valid States

New State

4.6.251 Send IMSI Response

MAP_SENDIMSI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.252 Send IMSI Confirmation

MAP_SENDIMSI_CON

Format

Parameters

Flags

Valid States

New State

4.6.253 Send Routing Information for LCS Request

MAP_SENDLCSRI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.254 Send Routing Information for LCS Indication

MAP_SENDLCSRI_IND

Format

Parameters

Flags

Valid States

New State

4.6.255 Send Routing Information for LCS Response

MAP_SENDLCSRI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.256 Send Routing Information for LCS Confirmation

MAP_SENDLCSRI_CON

Format

Parameters

Flags

Valid States

New State

4.6.257 Send Mobile Originated SMS Information Request

MAP_SENDMOSMSI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.258 Send Mobile Originated SMS Information Indication

MAP_SENDMOSMSI_IND

Format

Parameters

Flags

Valid States

New State

4.6.259 Send Mobile Originated SMS Information Response

MAP_SENDMOSMSI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.260 Send Mobile Originated SMS Information Confirmation

MAP_SENDMOSMSI_CON

Format

Parameters

Flags

Valid States

New State

4.6.261 Send Mobile Terminated SMS Information Request

MAP_SENDMTSMSI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.262 Send Mobile Terminated SMS Information Indication

MAP_SENDMTSMSI_IND

Format

Parameters

Flags

Valid States

New State

4.6.263 Send Mobile Terminated SMS Information Response

MAP_SENDMTSMSI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.264 Send Mobile Terminated SMS Information Confirmation

MAP_SENDMTSMSI_CON

Format

Parameters

Flags

Valid States

New State

4.6.265 Send Routing Information Request

MAP_SENDRI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.266 Send Routing Information Indication

MAP_SENDRI_IND

Format

Parameters

Flags

Valid States

New State

4.6.267 Send Routing Information Response

MAP_SENDRI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.268 Send Routing Information Confirmation

MAP_SENDRI_CON

Format

Parameters

Flags

Valid States

New State

4.6.269 Send Routing Information for SM Request

MAP_SENDSMSRI_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.270 Send Routing Information for SM Indication

MAP_SENDSMSRI_IND

Format

Parameters

Flags

Valid States

New State

4.6.271 Send Routing Information for SM Response

MAP_SENDSMSRI_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.272 Send Routing Information for SM Confirmation

MAP_SENDSMSRI_CON

Format

Parameters

Flags

Valid States

New State

4.6.273 SS Invocation Notification Request

MAP_SSINV_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.274 SS Invocation Notification Indication

MAP_SSINV_IND

Format

Parameters

Flags

Valid States

New State

4.6.275 SS Invocation Notification Response

MAP_SSINV_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.276 SS Invocation Notification Confirmation

MAP_SSINV_CON

Format

Parameters

Flags

Valid States

New State

4.6.277 Status Report Request

MAP_STATUS_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.278 Status Report Indication

MAP_STATUS_IND

Format

Parameters

Flags

Valid States

New State

4.6.279 Status Report Response

MAP_STATUS_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.280 Status Report Confirmation

MAP_STATUS_CON

Format

Parameters

Flags

Valid States

New State

4.6.281 Subscriber Location Report Request

MAP_SUBLOCREP_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.282 Subscriber Location Report Indication

MAP_SUBLOCREP_IND

Format

Parameters

Flags

Valid States

New State

4.6.283 Subscriber Location Report Response

MAP_SUBLOCREP_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.284 Subscriber Location Report Confirmation

MAP_SUBLOCREP_CON

Format

Parameters

Flags

Valid States

New State

4.6.285 Note Subscriber Data Modified Request

MAP_SUBSDATAMOD_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.286 Note Subscriber Data Modified Indication

MAP_SUBSDATAMOD_IND

Format

Parameters

Flags

Valid States

New State

4.6.287 Note Subscriber Data Modified Response

MAP_SUBSDATAMOD_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.288 Note Subscriber Data Modified Confirmation

MAP_SUBSDATAMOD_CON

Format

Parameters

Flags

Valid States

New State

4.6.289 Trace Subscriber Activity Request

MAP_TRACESA_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.290 Trace Subscriber Activity Indication

MAP_TRACESA_IND

Format

Parameters

Flags

Valid States

New State

4.6.291 Trace Subscriber Activity Response

MAP_TRACESA_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.292 Trace Subscriber Activity Confirmation

MAP_TRACESA_CON

Format

Parameters

Flags

Valid States

New State

4.6.293 Update GPRS Location Request

MAP_UDGRPSLOC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.294 Update GPRS Location Indication

MAP_UDGRPSLOC_IND

Format

Parameters

Flags

Valid States

New State

4.6.295 Update GPRS Location Response

MAP_UDGRPSLOC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.296 Update GPRS Location Confirmation

MAP_UDGRPSLOC_CON

Format

Parameters

Flags

Valid States

New State

4.6.297 Update Location Request

MAP_UDLOC_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE` The primitive would place the MAP interface out of state.

`TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.298 Update Location Indication

MAP_UDLOC_IND

Format

Parameters

Flags

Valid States

New State

4.6.299 Update Location Response

MAP_UDLOC_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.300 Update Location Confirmation

MAP_UDLOC_CON

Format

Parameters

Flags

Valid States

New State

4.6.301 Unstructured Supplementary Service Notify Request

MAP_USSDNTFY_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

— **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.

— **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

`TOUTSTATE`	The primitive would place the MAP interface out of state.
`TSYSERR`	A system error has occured and the UNIX System error in indicated in the primitive.

4.6.302 Unstructured Supplementary Service Notify Indication

MAP_USSDNTFY_IND

Format

Parameters

Flags

Valid States

New State

4.6.303 Unstructured Supplementary Service Notify Response

MAP_USSDNTFY_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.304 Unstructured Supplementary Service Notify Confirmation

MAP_USSDNTFY_CON

Format

Parameters

Flags

Valid States

New State

4.6.305 Unstructured Supplementary Service Request

MAP_USSDREQ_REQ

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.306 Unstructured Supplementary Service Indication

MAP_USSDREQ_IND

Format

Parameters

Flags

Valid States

New State

4.6.307 Unstructured Supplementary Service Response

MAP_USSDREQ_RES

Format

Parameters

Flags

Valid States

New State

Acknowledgements

This primitive requires the MAP provider to generate one of the following acknowledegements upon receipt of the primitive, and the MAP user must wait for the acknowledgement before issuing any other primitives:

- **Success:** Acknowledgement of the primitive with the `MAP_OK_ACK` primitive described in Section 4.1.11 [Successful Receipt Acknowledgement], page 44.
- **Non-fatal errors:** These errors will be indicated with the `MAP_ERROR_ACK` primitive described in Section 4.1.10 [Error Acknowledgement], page 43. The allowable errors are as follows:

  `TOUTSTATE` The primitive would place the MAP interface out of state.

  `TSYSERR` A system error has occured and the UNIX System error in indicated in the primitive.

4.6.308 Unstructured Supplementary Service Confirmation

MAP_USSDREQ_CON

Format

Parameters

Flags

Valid States

New State

5 Diagnostics Requirements

Two error handling facilities should be provided to the MAP service user: one to handle non-fatal errors, and the other to handle fatal errors.

5.1 Non-Fatal Error Handling Facility

These are errors that do not change the state of the MAP service interface as seen by the MAP service user and provide the user with the option of reissuing the MAP primitive with the corrected options specification. The non-fatal error handling is provided only to those primitives that require acknowledgements, and uses the `MAP_ERROR_ACK` to report these errors. These errors retain the state of the MAP service interface the same as it was before the MAP provider received the primitive that was in error. Syntax errors and rule violations are reported via the non-fatal error handling facility.

5.2 Fatal Error Handling Facility

These errors are issued by the MAP provider when it detects errors that are not correctable by the MAP user, or if it is unable to report a correctible error to the MAP service user. Fatal errors are indicated via the STREAMS message type `M_ERROR` with the UNIX system error `EPROTO`. The `M_ERROR` STREAMS message type will result in the failure of all the UNIX system calls on the stream. The MAP service user can recover from a fatal error by having all the processes close the files associated with the stream, and then reopening them for processing.

6 References

1. CCITT X.213, (Geneva, 1986), "Network Service Definition for Open Systems Interconnection (OSI) for CCITT Applications," (Grey Book).
2. ISO 8348 — "Information Processing Systems — Data Communications — Newtork Service Definition," 4/15/87
3. ISO 8348/AD — "Information Processing Systems — Data Communications — Newtork Service Definition — Addendum 1: Connectionless Mode Transmission," 4/15/87
4. ISO 8373 — "Information Processing Systems — Data Communicatoins Protocol for Providing the Connectionless Mode Network Service," SC6 N4542
5. ISO 8208 — "Information Processing Systems — X.25 Packet Level Protocol for Data Terminal Equipment," 9/1/87
6. ISO 8878 — "Information Processing Systems — Data Communications — Use of X.25 to Provide the OSI Connection-Mode Network Service," 9/1/87
7. System V Interface Definition, Issue 2 – Volume 3
8. CCITT X.210, (Geneva 1984), "Open Systems Interconnection (OSI) Layer Service Definition Conventions," (Red Book)

Addendum for 3GPP Conformance

Appendix A Mapping MAPI Primitives to 3GPP TS 29.002

Table A-1 shows the mapping of the MAPI primitives to the MAP service definition primitives listed in 3GPP TS 29.002 Release 6.6.0.

Table A-1. Mapping of MAPI Primitives to 3GPP TS 29.002

MAP Primitive	3GPP Service Primitive
`MAP_OPEN_REQ`	MAP-OPEN **req**
`MAP_OPEN_IND`	MAP-OPEN **ind**
`MAP_OPEN_RES`	MAP-OPEN **rsp**
`MAP_OPEN_CON`	MAP-OPEN **cnf**
`MAP_CLOSE_REQ`	MAP-CLOSE **req**
`MAP_CLOSE_IND`	MAP-CLOSE **ind**
`MAP_DELIM_REQ`	MAP-DELIMITER **req**
`MAP_DELIM_IND`	MAP-DELIMITER **ind**
`MAP_ABORT_REQ`	MAP-U-ABORT **req**
`MAP_UABORT_IND`	MAP-U-ABORT **ind**
`MAP_PABORT_IND`	MAP-P-ABORT **ind**
`MAP_NOTICE_IND`	MAP-NOTICE **ind**
`MAP_STC1_REQ`	MAP-SECURE-TRANSPORT-CLASS-1 **req**
`MAP_STC1_IND`	MAP-SECURE-TRANSPORT-CLASS-1 **ind**
`MAP_STC2_REQ`	MAP-SECURE-TRANSPORT-CLASS-2 **req**
`MAP_STC2_IND`	MAP-SECURE-TRANSPORT-CLASS-2 **ind**
`MAP_STC3_REQ`	MAP-SECURE-TRANSPORT-CLASS-3 **req**
`MAP_STC3_IND`	MAP-SECURE-TRANSPORT-CLASS-3 **ind**
`MAP_STC4_REQ`	MAP-SECURE-TRANSPORT-CLASS-4 **req**
`MAP_STC4_IND`	MAP-SECURE-TRANSPORT-CLASS-4 **ind**
`MAP_ACTSS_REQ`	MAP-ACTIVATE-SS **req**
`MAP_ACTSS_IND`	MAP-ACTIVATE-SS **ind**
`MAP_ACTSS_RES`	MAP-ACTIVATE-SS **rsp**
`MAP_ACTSS_CON`	MAP-ACTIVATE-SS **cnf**
`MAP_ACTTM_REQ`	MAP-ACTIVATE-TRACE-MODE **req**
`MAP_ACTTM_IND`	MAP-ACTIVATE-TRACE-MODE **ind**
`MAP_ACTTM_RES`	MAP-ACTIVATE-TRACE-MODE **rsp**
`MAP_ACTTM_CON`	MAP-ACTIVATE-TRACE-MODE **cnf**
`MAP_ALERTSC_REQ`	MAP-ALERT-SERVICE-CENTRE **req**
`MAP_ALERTSC_IND`	MAP-ALERT-SERVICE-CENTRE **ind**
`MAP_ALERTSC_RES`	MAP-ALERT-SERVICE-CENTRE **rsp**
`MAP_ALERTSC_CON`	MAP-ALERT-SERVICE-CENTRE **cnf**
`MAP_ALLOCHN_REQ`	MAP-ALLOCATE-HANDOVER-NUMBER **req**
`MAP_ALLOCHN_IND`	MAP-ALLOCATE-HANDOVER-NUMBER **ind**
`MAP_ALLOCHN_RES`	MAP-ALLOCATE-HANDOVER-NUMBER **rsp**
`MAP_ALLOCHN_CON`	MAP-ALLOCATE-HANDOVER-NUMBER **cnf**
`MAP_ANYMOD_REQ`	MAP-ANY-TIME-MODIFICATION **req**
`MAP_ANYMOD_IND`	MAP-ANY-TIME-MODIFICATION **ind**
`MAP_ANYMOD_RES`	MAP-ANY-TIME-MODIFICATION **rsp**
`MAP_ANYMOD_CON`	MAP-ANY-TIME-MODIFICATION **cnf**
`MAP_ANYQRY_REQ`	MAP-ANY-TIME-INTERROGATION **req**
`MAP_ANYQRY_IND`	MAP-ANY-TIME-INTERROGATION **ind**
`MAP_ANYQRY_RES`	MAP-ANY-TIME-INTERROGATION **rsp**

`MAP_ANYQRY_CON`	MAP-ANY-TIME-INTERROGATION **cnf**
`MAP_ANYSUB_REQ`	MAP-ANY-TIME-SUBSCRIPTION-INTERROGATION **req**
`MAP_ANYSUB_IND`	MAP-ANY-TIME-SUBSCRIPTION-INTERROGATION **ind**
`MAP_ANYSUB_RES`	MAP-ANY-TIME-SUBSCRIPTION-INTERROGATION **rsp**
`MAP_ANYSUB_CON`	MAP-ANY-TIME-SUBSCRIPTION-INTERROGATION **cnf**
`MAP_AUTH_REQ`	MAP-AUTHENTICATE **req**
`MAP_AUTH_IND`	MAP-AUTHENTICATE **ind**
`MAP_AUTH_RES`	MAP-AUTHENTICATE **rsp**
`MAP_AUTH_CON`	MAP-AUTHENTICATE **cnf**
`MAP_AUTHFAIL_REQ`	MAP-AUTHENTICATION-FAILURE-REPORT **req**
`MAP_AUTHFAIL_IND`	MAP-AUTHENTICATION-FAILURE-REPORT **ind**
`MAP_AUTHFAIL_RES`	MAP-AUTHENTICATION-FAILURE-REPORT **rsp**
`MAP_AUTHFAIL_CON`	MAP-AUTHENTICATION-FAILURE-REPORT **cnf**
`MAP_CANCLOC_REQ`	MAP-CANCEL-LOCATION **req**
`MAP_CANCLOC_IND`	MAP-CANCEL-LOCATION **ind**
`MAP_CANCLOC_RES`	MAP-CANCEL-LOCATION **rsp**
`MAP_CANCLOC_CON`	MAP-CANCEL-LOCATION **cnf**
`MAP_CKIEMI_REQ`	MAP-CHECK-IEMI **req**
`MAP_CKIEMI_IND`	MAP-CHECK-IEMI **ind**
`MAP_CKIEMI_RES`	MAP-CHECK-IEMI **rsp**
`MAP_CKIEMI_CON`	MAP-CHECK-IEMI **cnf**
`MAP_DEACTSS_REQ`	MAP-DEACTIVATE-SS **req**
`MAP_DEACTSS_IND`	MAP-DEACTIVATE-SS **ind**
`MAP_DEACTSS_RES`	MAP-DEACTIVATE-SS **rsp**
`MAP_DEACTSS_CON`	MAP-DEACTIVATE-SS **cnf**
`MAP_DEACTTM_REQ`	MAP-DEACTIVATE-TRACE-MODE **req**
`MAP_DEACTTM_IND`	MAP-DEACTIVATE-TRACE-MODE **ind**
`MAP_DEACTTM_RES`	MAP-DEACTIVATE-TRACE-MODE **rsp**
`MAP_DEACTTM_CON`	MAP-DEACTIVATE-TRACE-MODE **cnf**
`MAP_DELSUBD_REQ`	MAP-DELETE-SUBSCRIBER-DATA **req**
`MAP_DELSUBD_IND`	MAP-DELETE-SUBSCRIBER-DATA **ind**
`MAP_DELSUBD_RES`	MAP-DELETE-SUBSCRIBER-DATA **rsp**
`MAP_DELSUBD_CON`	MAP-DELETE-SUBSCRIBER-DATA **cnf**
`MAP_ERASECC_REQ`	MAP-ERASE-CC-ENTRY **req**
`MAP_ERASECC_IND`	MAP-ERASE-CC-ENTRY **ind**
`MAP_ERASECC_RES`	MAP-ERASE-CC-ENTRY **rsp**
`MAP_ERASECC_CON`	MAP-ERASE-CC-ENTRY **cnf**
`MAP_ERASESS_REQ`	MAP-ERASE-SS **req**
`MAP_ERASESS_IND`	MAP-ERASE-SS **ind**
`MAP_ERASESS_RES`	MAP-ERASE-SS **rsp**
`MAP_ERASESS_CON`	MAP-ERASE-SS **cnf**
`MAP_FAILURE_REQ`	MAP-FAILURE-REPORT **req**
`MAP_FAILURE_IND`	MAP-FAILURE-REPORT **ind**
`MAP_FAILURE_RES`	MAP-FAILURE-REPORT **rsp**
`MAP_FAILURE_CON`	MAP-FAILURE-REPORT **cnf**
`MAP_FAS_REQ`	MAP-FORWARD-ACCESS-SIGNALLING **req**
`MAP_FAS_IND`	MAP-FORWARD-ACCESS-SIGNALLING **ind**
`MAP_FAS_RES`	MAP-FORWARD-ACCESS-SIGNALLING **rsp**
`MAP_FAS_CON`	MAP-FORWARD-ACCESS-SIGNALLING **cnf**

`MAP_FCKSSIND_REQ`	MAP-FORWARD-CHECK-SS-INDICATION **req**
`MAP_FCKSSIND_IND`	MAP-FORWARD-CHECK-SS-INDICATION **ind**
`MAP_FCKSSIND_RES`	MAP-FORWARD-CHECK-SS-INDICATION **rsp**
`MAP_FCKSSIND_CON`	MAP-FORWARD-CHECK-SS-INDICATION **cnf**
`MAP_FGRCSIG_REQ`	MAP-FORWARD-GROUP-CALL-SIGNALLING **req**
`MAP_FGRCSIG_IND`	MAP-FORWARD-GROUP-CALL-SIGNALLING **ind**
`MAP_FGRCSIG_RES`	MAP-FORWARD-GROUP-CALL-SIGNALLING **rsp**
`MAP_FGRCSIG_CON`	MAP-FORWARD-GROUP-CALL-SIGNALLING **cnf**
`MAP_FNEWIMSI_REQ`	MAP-FORWARD-NEW-IMSI **req**
`MAP_FNEWIMSI_IND`	MAP-FORWARD-NEW-IMSI **ind**
`MAP_FNEWIMSI_RES`	MAP-FORWARD-NEW-IMSI **rsp**
`MAP_FNEWIMSI_CON`	MAP-FORWARD-NEW-IMSI **cnf**
`MAP_GETIEMI_REQ`	MAP-OBTAIN-IEMI **req**
`MAP_GETIEMI_IND`	MAP-OBTAIN-IEMI **ind**
`MAP_GETIEMI_RES`	MAP-OBTAIN-IEMI **rsp**
`MAP_GETIEMI_CON`	MAP-OBTAIN-IEMI **cnf**
`MAP_GETPASS_REQ`	MAP-GET-PASSWORD **req**
`MAP_GETPASS_IND`	MAP-GET-PASSWORD **ind**
`MAP_GETPASS_RES`	MAP-GET-PASSWORD **rsp**
`MAP_GETPASS_CON`	MAP-GET-PASSWORD **cnf**
`MAP_INFORMSC_REQ`	MAP-INFORM-SERVICE-CENTER **req**
`MAP_INFORMSC_IND`	MAP-INFORM-SERVICE-CENTER **ind**
`MAP_INFORMSC_RES`	MAP-INFORM-SERVICE-CENTER **rsp**
`MAP_INFORMSC_CON`	MAP-INFORM-SERVICE-CENTER **cnf**
`MAP_INSSUBSD_REQ`	MAP-INSERT-SUBSCRIBER-DATA **req**
`MAP_INSSUBSD_IND`	MAP-INSERT-SUBSCRIBER-DATA **ind**
`MAP_INSSUBSD_RES`	MAP-INSERT-SUBSCRIBER-DATA **rsp**
`MAP_INSSUBSD_CON`	MAP-INSERT-SUBSCRIBER-DATA **cnf**
`MAP_INTERGSS_REQ`	MAP-INTERROGATE-SS **req**
`MAP_INTERGSS_IND`	MAP-INTERROGATE-SS **ind**
`MAP_INTERGSS_RES`	MAP-INTERROGATE-SS **rsp**
`MAP_INTERGSS_CON`	MAP-INTERROGATE-SS **cnf**
`MAP_ISTALERT_REQ`	MAP-IST-ALERT **req**
`MAP_ISTALERT_IND`	MAP-IST-ALERT **ind**
`MAP_ISTALERT_RES`	MAP-IST-ALERT **rsp**
`MAP_ISTALERT_CON`	MAP-IST-ALERT **cnf**
`MAP_ISTCMD_REQ`	MAP-IST-COMMAND **req**
`MAP_ISTCMD_IND`	MAP-IST-COMMAND **ind**
`MAP_ISTCMD_RES`	MAP-IST-COMMAND **rsp**
`MAP_ISTCMD_CON`	MAP-IST-COMMAND **cnf**
`MAP_MMEVENT_REQ`	MAP-NOTE-MM-EVENT **req**
`MAP_MMEVENT_IND`	MAP-NOTE-MM-EVENT **ind**
`MAP_MMEVENT_RES`	MAP-NOTE-MM-EVENT **rsp**
`MAP_MMEVENT_CON`	MAP-NOTE-MM-EVENT **cnf**
`MAP_MOFSMS_REQ`	MAP-MO-FORWARD-SHORT-MESSAGE **req**
`MAP_MOFSMS_IND`	MAP-MO-FORWARD-SHORT-MESSAGE **ind**
`MAP_MOFSMS_RES`	MAP-MO-FORWARD-SHORT-MESSAGE **rsp**
`MAP_MOFSMS_CON`	MAP-MO-FORWARD-SHORT-MESSAGE **cnf**
`MAP_MSGRPSPRES_REQ`	MAP-NOTE-MS-PRESENT-FOR-GPRS **req**

MAP_MSGRPSPRES_IND	MAP-NOTE-MS-PRESENT-FOR-GPRS **ind**
MAP_MSGRPSPRES_RES	MAP-NOTE-MS-PRESENT-FOR-GPRS **rsp**
MAP_MSGRPSPRES_CON	MAP-NOTE-MS-PRESENT-FOR-GPRS **cnf**
MAP_MTFSMS_REQ	MAP-MT-FORWARD-SHORT-MESSAGE **req**
MAP_MTFSMS_IND	MAP-MT-FORWARD-SHORT-MESSAGE **ind**
MAP_MTFSMS_RES	MAP-MT-FORWARD-SHORT-MESSAGE **rsp**
MAP_MTFSMS_CON	MAP-MT-FORWARD-SHORT-MESSAGE **cnf**
MAP_PAGE_REQ	MAP-PAGE **req**
MAP_PAGE_IND	MAP-PAGE **ind**
MAP_PAGE_RES	MAP-PAGE **rsp**
MAP_PAGE_CON	MAP-PAGE **cnf**
MAP_PREPGC_REQ	MAP-PREPARE-GROUP-CALL **req**
MAP_PREPGC_IND	MAP-PREPARE-GROUP-CALL **ind**
MAP_PREPGC_RES	MAP-PREPARE-GROUP-CALL **rsp**
MAP_PREPGC_CON	MAP-PREPARE-GROUP-CALL **cnf**
MAP_PREPHO_REQ	MAP-PREPARE-HANDOVER **req**
MAP_PREPHO_IND	MAP-PREPARE-HANDOVER **ind**
MAP_PREPHO_RES	MAP-PREPARE-HANDOVER **rsp**
MAP_PREPHO_CON	MAP-PREPARE-HANDOVER **cnf**
MAP_PREPSH_REQ	MAP-PREPARE-SUBSEQUENT-HANDOVER **req**
MAP_PREPSH_IND	MAP-PREPARE-SUBSEQUENT-HANDOVER **ind**
MAP_PREPSH_RES	MAP-PREPARE-SUBSEQUENT-HANDOVER **rsp**
MAP_PREPSH_CON	MAP-PREPARE-SUBSEQUENT-HANDOVER **cnf**
MAP_PROCAS_REQ	MAP-PROCESS-ACCESS-SIGNALLING **req**
MAP_PROCAS_IND	MAP-PROCESS-ACCESS-SIGNALLING **ind**
MAP_PROCAS_RES	MAP-PROCESS-ACCESS-SIGNALLING **rsp**
MAP_PROCAS_CON	MAP-PROCESS-ACCESS-SIGNALLING **cnf**
MAP_PROCGC_REQ	MAP-PROCESS-GROUP-CALL-SIGNALLING **req**
MAP_PROCGC_IND	MAP-PROCESS-GROUP-CALL-SIGNALLING **ind**
MAP_PROCGC_RES	MAP-PROCESS-GROUP-CALL-SIGNALLING **rsp**
MAP_PROCGC_CON	MAP-PROCESS-GROUP-CALL-SIGNALLING **cnf**
MAP_PROCUSS_REQ	MAP-PROCESS-UNSTRUCTURED-SS-REQUEST **req**
MAP_PROCUSS_IND	MAP-PROCESS-UNSTRUCTURED-SS-REQUEST **ind**
MAP_PROCUSS_RES	MAP-PROCESS-UNSTRUCTURED-SS-REQUEST **rsp**
MAP_PROCUSS_CON	MAP-PROCESS-UNSTRUCTURED-SS-REQUEST **cnf**
MAP_PROVIMSI_REQ	MAP-PROVIDE-IMSI **req**
MAP_PROVIMSI_IND	MAP-PROVIDE-IMSI **ind**
MAP_PROVIMSI_RES	MAP-PROVIDE-IMSI **rsp**
MAP_PROVIMSI_CON	MAP-PROVIDE-IMSI **cnf**
MAP_PROVRN_REQ	MAP-PROVIDE-ROAMING-NUMBER **req**
MAP_PROVRN_IND	MAP-PROVIDE-ROAMING-NUMBER **ind**
MAP_PROVRN_RES	MAP-PROVIDE-ROAMING-NUMBER **rsp**
MAP_PROVRN_CON	MAP-PROVIDE-ROAMING-NUMBER **cnf**
MAP_PROVSLOC_REQ	MAP-PROVIDE-SUBSCRIBER-LOCATION **req**
MAP_PROVSLOC_IND	MAP-PROVIDE-SUBSCRIBER-LOCATION **ind**
MAP_PROVSLOC_RES	MAP-PROVIDE-SUBSCRIBER-LOCATION **rsp**
MAP_PROVSLOC_CON	MAP-PROVIDE-SUBSCRIBER-LOCATION **cnf**
MAP_PROVSUBI_REQ	MAP-PROVIDE-SUBSCRIBER-INFO **req**
MAP_PROVSUBI_IND	MAP-PROVIDE-SUBSCRIBER-INFO **ind**

`MAP_PROVSUBI_RES`	MAP-PROVIDE-SUBSCRIBER-INFO **rsp**
`MAP_PROVSUBI_CON`	MAP-PROVIDE-SUBSCRIBER-INFO **cnf**
`MAP_PURGEMS_REQ`	MAP-PURGE-MS **req**
`MAP_PURGEMS_IND`	MAP-PURGE-MS **ind**
`MAP_PURGEMS_RES`	MAP-PURGE-MS **rsp**
`MAP_PURGEMS_CON`	MAP-PURGE-MS **cnf**
`MAP_RDYSM_REQ`	MAP-READY-FOR-SM **req**
`MAP_RDYSM_IND`	MAP-READY-FOR-SM **ind**
`MAP_RDYSM_RES`	MAP-READY-FOR-SM **rsp**
`MAP_RDYSM_CON`	MAP-READY-FOR-SM **cnf**
`MAP_REGCC_REQ`	MAP-REGISTER-CC-ENTRY **req**
`MAP_REGCC_IND`	MAP-REGISTER-CC-ENTRY **ind**
`MAP_REGCC_RES`	MAP-REGISTER-CC-ENTRY **rsp**
`MAP_REGCC_CON`	MAP-REGISTER-CC-ENTRY **cnf**
`MAP_REGPW_REQ`	MAP-REGISTER-PASSWORD **req**
`MAP_REGPW_IND`	MAP-REGISTER-PASSWORD **ind**
`MAP_REGPW_RES`	MAP-REGISTER-PASSWORD **rsp**
`MAP_REGPW_CON`	MAP-REGISTER-PASSWORD **cnf**
`MAP_REGSS_REQ`	MAP-REGISTER-SS **req**
`MAP_REGSS_IND`	MAP-REGISTER-SS **ind**
`MAP_REGSS_RES`	MAP-REGISTER-SS **rsp**
`MAP_REGSS_CON`	MAP-REGISTER-SS **cnf**
`MAP_REMUSRFREE_REQ`	MAP-REMOTE-USER-FREE **req**
`MAP_REMUSRFREE_IND`	MAP-REMOTE-USER-FREE **ind**
`MAP_REMUSRFREE_RES`	MAP-REMOTE-USER-FREE **rsp**
`MAP_REMUSRFREE_CON`	MAP-REMOTE-USER-FREE **cnf**
`MAP_RESET_REQ`	MAP-RESET **req**
`MAP_RESET_IND`	MAP-RESET **ind**
`MAP_RESET_RES`	MAP-RESET **rsp**
`MAP_RESET_CON`	MAP-RESET **cnf**
`MAP_RESTORE_REQ`	MAP-RESTORE-DATA **req**
`MAP_RESTORE_IND`	MAP-RESTORE-DATA **ind**
`MAP_RESTORE_RES`	MAP-RESTORE-DATA **rsp**
`MAP_RESTORE_CON`	MAP-RESTORE-DATA **cnf**
`MAP_RESUME_REQ`	MAP-RESUME-CALL-HANDLING **req**
`MAP_RESUME_IND`	MAP-RESUME-CALL-HANDLING **ind**
`MAP_RESUME_RES`	MAP-RESUME-CALL-HANDLING **rsp**
`MAP_RESUME_CON`	MAP-RESUME-CALL-HANDLING **cnf**
`MAP_SEARCH_REQ`	MAP-SEARCH-FOR-MS **req**
`MAP_SEARCH_IND`	MAP-SEARCH-FOR-MS **ind**
`MAP_SEARCH_RES`	MAP-SEARCH-FOR-MS **rsp**
`MAP_SEARCH_CON`	MAP-SEARCH-FOR-MS **cnf**
`MAP_SENDAUTHI_REQ`	MAP-SEND-AUTHENTICATION-INFO **req**
`MAP_SENDAUTHI_IND`	MAP-SEND-AUTHENTICATION-INFO **ind**
`MAP_SENDAUTHI_RES`	MAP-SEND-AUTHENTICATION-INFO **rsp**
`MAP_SENDAUTHI_CON`	MAP-SEND-AUTHENTICATION-INFO **cnf**
`MAP_SENDEND_REQ`	MAP-SEND-END-SIGNAL **req**
`MAP_SENDEND_IND`	MAP-SEND-END-SIGNAL **ind**
`MAP_SENDEND_RES`	MAP-SEND-END-SIGNAL **rsp**

`MAP_SENDEND_CON`	MAP-SEND-END-SIGNAL **cnf**
`MAP_SENDGCEND_REQ`	MAP-SEND-GROUP-CALL-END-SIGNAL **req**
`MAP_SENDGCEND_IND`	MAP-SEND-GROUP-CALL-END-SIGNAL **ind**
`MAP_SENDGCEND_RES`	MAP-SEND-GROUP-CALL-END-SIGNAL **rsp**
`MAP_SENDGCEND_CON`	MAP-SEND-GROUP-CALL-END-SIGNAL **cnf**
`MAP_SENDGPRSRI_REQ`	MAP-SEND-ROUTING-INFO-FOR-GPRS **req**
`MAP_SENDGPRSRI_IND`	MAP-SEND-ROUTING-INFO-FOR-GPRS **ind**
`MAP_SENDGPRSRI_RES`	MAP-SEND-ROUTING-INFO-FOR-GPRS **rsp**
`MAP_SENDGPRSRI_CON`	MAP-SEND-ROUTING-INFO-FOR-GPRS **cnf**
`MAP_SENDHOREP_REQ`	MAP-SEND-HANDOVER-REPORT **req**
`MAP_SENDHOREP_IND`	MAP-SEND-HANDOVER-REPORT **ind**
`MAP_SENDHOREP_RES`	MAP-SEND-HANDOVER-REPORT **rsp**
`MAP_SENDHOREP_CON`	MAP-SEND-HANDOVER-REPORT **cnf**
`MAP_SENDID_REQ`	MAP-SEND-IDENTIFICATION **req**
`MAP_SENDID_IND`	MAP-SEND-IDENTIFICATION **ind**
`MAP_SENDID_RES`	MAP-SEND-IDENTIFICATION **rsp**
`MAP_SENDID_CON`	MAP-SEND-IDENTIFICATION **cnf**
`MAP_SENDIMSI_REQ`	MAP-SEND-IMSI **req**
`MAP_SENDIMSI_IND`	MAP-SEND-IMSI **ind**
`MAP_SENDIMSI_RES`	MAP-SEND-IMSI **rsp**
`MAP_SENDIMSI_CON`	MAP-SEND-IMSI **cnf**
`MAP_SENDLCSRI_REQ`	MAP-SEND-ROUTING-INFO-FOR-LCS **req**
`MAP_SENDLCSRI_IND`	MAP-SEND-ROUTING-INFO-FOR-LCS **ind**
`MAP_SENDLCSRI_RES`	MAP-SEND-ROUTING-INFO-FOR-LCS **rsp**
`MAP_SENDLCSRI_CON`	MAP-SEND-ROUTING-INFO-FOR-LCS **cnf**
`MAP_SENDMOSMSI_REQ`	MAP-SEND-INFO-FOR-MO-SMS **req**
`MAP_SENDMOSMSI_IND`	MAP-SEND-INFO-FOR-MO-SMS **ind**
`MAP_SENDMOSMSI_RES`	MAP-SEND-INFO-FOR-MO-SMS **rsp**
`MAP_SENDMOSMSI_CON`	MAP-SEND-INFO-FOR-MO-SMS **cnf**
`MAP_SENDMTSMSI_REQ`	MAP-SEND-INFO-FOR-MT-SMS **req**
`MAP_SENDMTSMSI_IND`	MAP-SEND-INFO-FOR-MT-SMS **ind**
`MAP_SENDMTSMSI_RES`	MAP-SEND-INFO-FOR-MT-SMS **rsp**
`MAP_SENDMTSMSI_CON`	MAP-SEND-INFO-FOR-MT-SMS **cnf**
`MAP_SENDRI_REQ`	MAP-SEND-ROUTING-INFORMATION **req**
`MAP_SENDRI_IND`	MAP-SEND-ROUTING-INFORMATION **ind**
`MAP_SENDRI_RES`	MAP-SEND-ROUTING-INFORMATION **rsp**
`MAP_SENDRI_CON`	MAP-SEND-ROUTING-INFORMATION **cnf**
`MAP_SENDSMSRI_REQ`	MAP-SEND-ROUTING-INFO-FOR-SM **req**
`MAP_SENDSMSRI_IND`	MAP-SEND-ROUTING-INFO-FOR-SM **ind**
`MAP_SENDSMSRI_RES`	MAP-SEND-ROUTING-INFO-FOR-SM **rsp**
`MAP_SENDSMSRI_CON`	MAP-SEND-ROUTING-INFO-FOR-SM **cnf**
`MAP_SETCM_REQ`	MAP-SET-CIPHERING-MODE **req**
`MAP_SETCM_IND`	MAP-SET-CIPHERING-MODE **ind**
`MAP_SETCM_RES`	MAP-SET-CIPHERING-MODE **rsp**
`MAP_SETCM_CON`	MAP-SET-CIPHERING-MODE **cnf**
`MAP_SETREP_REQ`	MAP-SET-REPORTING-STATE **req**
`MAP_SETREP_IND`	MAP-SET-REPORTING-STATE **ind**
`MAP_SETREP_RES`	MAP-SET-REPORTING-STATE **rsp**
`MAP_SETREP_CON`	MAP-SET-REPORTING-STATE **cnf**

`MAP_SMDELIVSTAT_REQ`	MAP-REPORT-SM-DELIVER-STATUS **req**
`MAP_SMDELIVSTAT_IND`	MAP-REPORT-SM-DELIVER-STATUS **ind**
`MAP_SMDELIVSTAT_RES`	MAP-REPORT-SM-DELIVER-STATUS **rsp**
`MAP_SMDELIVSTAT_CON`	MAP-REPORT-SM-DELIVER-STATUS **cnf**
`MAP_SSINV_REQ`	MAP-SS-INVOCATION-NOTIFICATION **req**
`MAP_SSINV_IND`	MAP-SS-INVOCATION-NOTIFICATION **ind**
`MAP_SSINV_RES`	MAP-SS-INVOCATION-NOTIFICATION **rsp**
`MAP_SSINV_CON`	MAP-SS-INVOCATION-NOTIFICATION **cnf**
`MAP_STATUS_REQ`	MAP-STATUS-REPORT **req**
`MAP_STATUS_IND`	MAP-STATUS-REPORT **ind**
`MAP_STATUS_RES`	MAP-STATUS-REPORT **rsp**
`MAP_STATUS_CON`	MAP-STATUS-REPORT **cnf**
`MAP_SUBLOCREP_REQ`	MAP-SUBSCRIBER-LOCATION-REPORT **req**
`MAP_SUBLOCREP_IND`	MAP-SUBSCRIBER-LOCATION-REPORT **ind**
`MAP_SUBLOCREP_RES`	MAP-SUBSCRIBER-LOCATION-REPORT **rsp**
`MAP_SUBLOCREP_CON`	MAP-SUBSCRIBER-LOCATION-REPORT **cnf**
`MAP_SUBSDATAMOD_REQ`	MAP-NOTE-SUBSCRIBER-DATA-MODIFIED **req**
`MAP_SUBSDATAMOD_IND`	MAP-NOTE-SUBSCRIBER-DATA-MODIFIED **ind**
`MAP_SUBSDATAMOD_RES`	MAP-NOTE-SUBSCRIBER-DATA-MODIFIED **rsp**
`MAP_SUBSDATAMOD_CON`	MAP-NOTE-SUBSCRIBER-DATA-MODIFIED **cnf**
`MAP_TRACESA_REQ`	MAP-TRACE-SUBSCRIBER-ACTIVITY **req**
`MAP_TRACESA_IND`	MAP-TRACE-SUBSCRIBER-ACTIVITY **ind**
`MAP_TRACESA_RES`	MAP-TRACE-SUBSCRIBER-ACTIVITY **rsp**
`MAP_TRACESA_CON`	MAP-TRACE-SUBSCRIBER-ACTIVITY **cnf**
`MAP_UDGRPSLOC_REQ`	MAP-UPDATE-GPRS-LOCATION **req**
`MAP_UDGRPSLOC_IND`	MAP-UPDATE-GPRS-LOCATION **ind**
`MAP_UDGRPSLOC_RES`	MAP-UPDATE-GPRS-LOCATION **rsp**
`MAP_UDGRPSLOC_CON`	MAP-UPDATE-GPRS-LOCATION **cnf**
`MAP_UDLOC_REQ`	MAP-UPDATE-LOCATION **req**
`MAP_UDLOC_IND`	MAP-UPDATE-LOCATION **ind**
`MAP_UDLOC_RES`	MAP-UPDATE-LOCATION **rsp**
`MAP_UDLOC_CON`	MAP-UPDATE-LOCATION **cnf**
`MAP_USSDNTFY_REQ`	MAP-UNSTRUCTURED-SS-NOTIFY **req**
`MAP_USSDNTFY_IND`	MAP-UNSTRUCTURED-SS-NOTIFY **ind**
`MAP_USSDNTFY_RES`	MAP-UNSTRUCTURED-SS-NOTIFY **rsp**
`MAP_USSDNTFY_CON`	MAP-UNSTRUCTURED-SS-NOTIFY **cnf**
`MAP_USSDREQ_REQ`	MAP-UNSTRUCTURED-SS-REQUEST **req**
`MAP_USSDREQ_IND`	MAP-UNSTRUCTURED-SS-REQUEST **ind**
`MAP_USSDREQ_RES`	MAP-UNSTRUCTURED-SS-REQUEST **rsp**
`MAP_USSDREQ_CON`	MAP-UNSTRUCTURED-SS-REQUEST **cnf**

A.1 Application Contexts

Table 1. Application Contexts

Ver.	Application Contexts	Operations
v3	locationCancellationContext	cancelLocation
v3	equipmentMngtContext	checkIEMI

v2	imsiRetrievalContext	sendIMSI
v3	infoRetrievalContext	sendAuthenticationInfo
v3	interVlrInfoRetrievalContext	sendIdentification
v3	handoverControlContext	prepareHandover, forwareAccessSignalling, sendEndSignal, processAccessSignalling, prepareSubsequentHandover
v3	mwdMngtContext	readyForSM
v3	msPurgingContext	purgeMS
v2	shortMsgAlertContext	alertServiceCentre
v2	resetContext	reset
v2	networkUnstructuredSsContext	processUnstructuredSS-Request, unstructuredSS-Request, unstructuredSS-Notify
v3	tracingContext	activateTraceMode, deactivateTraceMode
v2	networkFunctionalSsContext	registerSS, eraseSS, activateSS, deactivateSS, registerPassword, interrogateSS, getPassword
v3	shortMsgMO-RelayContext	mo-forwardSM
v3	shortMsgMT-RelayContext	mt-forwardSM
v3	shortMsgGatewayContext	sendRoutingInfoForSM, reportSM-DeliveryStatus, InformServiceCentre
v3	networkLocUpContext	updateLocation, forwardCheckSs-Indication, restoreData, insertSubscriberData, activateTraceMode
v3	gprsLocationUpdateContext	updateGprsLocation, insertSubscriberData, activateTraceMode
v3	subscriberDataMngtContext	insertSubscriberData, deleteSubscriberData
v3	roamingNumberEnquiryContext	provideRoamingNumber
v3	locationInfoRetrievalContext	sendRoutingInfo
v3	gprsNotifyContext	noteMsPresentForGprs
v4	gprsLocationInfoRetrievalContext	sendRoutingInfoForGprs
v3	failureReportContext	failureReport
v4	callControlTransferContext	resumeCallHandling
v3	susbcriberInfoEnquiryContext	provideSubscriberInfo
v3	anyTimeEnquiryContext	anyTimeInterrogation

v3	anyTimeInfoHandlingContext	anyTimeSubscriptionInterrogation, anyTimeModification
v3	ss-InvocationNotificationContext	ss-InvocationNotification
v3	groupCallControlContext	prepareGroupCall, processGroupCallSignalling, forwardGroupCallSignalling, sendGroupCallEndSignal
v3	reportingContext	setReportingState, statusReport, remoteUserFree
v3	callCompletionContext	registerCC-Entry, eraceCC-Entry
v3	isAlertingContext	isAlert
v3	ServiceTerminationContext	istCommand
v3	locationSvcEnquiryContext	provideSubscriberLocation, subscriberLocationReport
v3	locationSvcGatewayContext	sendRoutingInfoForLCS
v3	mm-EventReportingContext	noteMM-Event
v3	subscriberDataModificationNotificationContext	noteSubscriberDataModified
v3	authenticationFailureReportContext	authenticationFailureReport
v3	secureTransportHandlingContext	secureTransportClass1, secureTransportClass2, secureTransportClass3, secureTransportClass4

Appendix B State/Event Tables

Appendix C Primitive Precedence Tables

Appendix D MAPI Header File Listing

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