

SLOVENSKI STANDARD

SIST ETS 300 974 E3:2003

01-december-2003

Digitalni celilni telekomunikacijski sistem (faza 2+); i Specifikacija dela za mobilne aplikacije (MAP) (GSM 09.02, različica 5.6.1)

Digital cellular telecommunications system (Phase 2+) (GSM); Mobile Application Part (MAP) specification (GSM 09.02 version 5.6.1)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ETS 300 974 Edition 3
<https://standards.iteh.ai/catalog/standards/sist/b9c5f81d-186a-45c7-a94c-be18705902f5/sist-ets-300-974-e3-2003>

ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
-----------	---	--

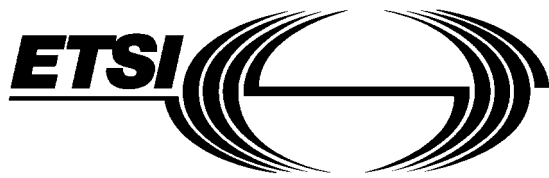
SIST ETS 300 974 E3:2003

en

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

SIST ETS 300 974 E3:2003

<https://standards.iteh.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-be18705902f5/sist-ets-300-974-e3-2003>



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 974

January 1998

Third Edition

Source: SMG

Reference: RE/SMG-030902QR2

ICS: 33.020

Key words: Digital cellular telecommunications system, Global System for Mobile communications (GSM)



**Digital cellular telecommunications system (Phase 2+);
Mobile Application Part (MAP) specification
(GSM 09.02 version 5.6.1)**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 4 92 94 42 00 - **Fax:** +33 4 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1998. All rights reserved.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST ETS 300 974 E3:2003](https://standards.iteh.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-be18705902f5/sist-ets-300-974-e3-2003)

<https://standards.iteh.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-be18705902f5/sist-ets-300-974-e3-2003>

Contents

Foreword	21
1 Scope	23
1.1 Normative references	23
1.2 Abbreviations	29
2 Configuration of the mobile network	29
2.1 The entities of the mobile system	29
2.1.1 The Home Location Register (HLR)	29
2.1.2 The Visitor Location Register (VLR)	29
2.1.3 The Mobile-services Switching Centre (MSC)	30
2.1.4 The Base Station System (BSS)	30
2.1.5 The Gateway MSC (GMSC)	30
2.1.6 The SMS Gateway MSC	30
2.1.7 The SMS Interworking MSC	30
2.1.8 The VBS/VGCS Anchor MSC	30
2.1.9 The Equipment Identity Register (EIR)	31
2.1.10 The GSM Service Control Function (gsmSCF)	31
2.1.11 The VBS/VGCS Anchor MSC	31
2.1.10 The Group Call Register (GCR)	31
2.2 Configuration of a Public Land Mobile Network (PLMN)	31
2.3 Interconnection between PLMNs	31
2.4 The interfaces within the mobile service	31
2.4.1 Interface between the HLR and the VLR (D-interface)	31
2.4.2 Interface between the HLR and the gsmSCF (J-interface)	32
2.4.3 Interface between the VLR and its associated MSC(s) (B-interface)	32
2.4.4 Interface between VLRs (G-interface)	32
2.4.5 Interface between the HLR and the MSC (C-interface)	32
2.4.6 Interface between MSCs (E-interface)	32
2.4.7 Interface between the MSC and Base Station Systems (A-interface)	32
2.4.8 Interface between MSC and EIR (F-interface)	32
2.4.9 Interface between VBS/VGCS Anchor MSC and GCR (I-interface)	33
2.5 Splitting of the data storage	33
3 Overload and compatibility overview	35
3.1 Overload control	35
3.1.1 Overload control for MSC (outside MAP)	35
3.1.2 Overload control for MAP entities	35
3.1.3 Congestion control for Signalling System No. 7	38
3.2 Compatibility	38
3.2.1 General	38
3.2.2 Strategy for selecting the Application Context (AC) version	38
3.2.2.1 Proposed method	38
3.2.2.2 Managing the version look-up table	39
3.2.2.3 Optimizing the method	40
4 Requirements concerning the use of SCCP and TC	41
4.1 Use of SCCP	41
4.1.1 SCCP Class	41
4.1.2 Sub-System Number (SSN)	41
4.1.3 SCCP addressing	41
4.1.3.1 Introduction	41
4.1.3.2 The Mobile-services Switching Centre (MSC)	42
4.1.3.2.1 MSC interaction during handover	42

	4.1.3.2.2	MSC for short message routing	42
	4.1.3.3	The Home Location Register (HLR)	42
	4.1.3.3.1	During call set-up	43
	4.1.3.3.2	Before location updating completion	43
	4.1.3.3.3	After location updating completion	43
	4.1.3.3.4	VLR restoration	44
	4.1.3.4	The Visitor Location Register (VLR)	44
	4.1.3.4.1	Inter-VLR information retrieval	44
	4.1.3.4.2	HLR request	44
	4.1.3.5	The Interworking MSC (IWMSC) for Short Message Service	44
	4.1.3.6	The Equipment Identity Register (EIR)	44
	4.1.3.7	Summary table	44
4.2	Use of TC		45
5	General on MAP services		47
5.1	Terminology and definitions		47
5.2	Modelling principles		47
5.3	Common MAP services		47
	5.3.1	MAP-OPEN service	48
	5.3.2	MAP-CLOSE service	50
	5.3.3	MAP-DELIMITER service	51
	5.3.4	MAP-U-ABORT service	51
	5.3.5	MAP-P-ABORT service	52
	5.3.6	MAP-NOTICE service	53
5.4	Sequencing of services		53
5.5	General rules for mapping of services onto TC		55
	5.5.1	Mapping of common services	55
	5.5.2	Mapping of user specific services	57
5.6	Definition of parameters		57
	5.6.1	Common parameters	59
	5.6.1.1	Invoke Id	59
	5.6.1.2	Linked Id	59
	5.6.1.3	Provider error	59
	5.6.1.4	User error	59
	5.6.2	Numbering and identification parameter	61
	5.6.2.1	IMSI	61
	5.6.2.2	TMSI	61
	5.6.2.3	IMEI	61
	5.6.2.4	Previous location area Id	62
	5.6.2.5	Stored location area Id	62
	5.6.2.6	Current location area Id	62
	5.6.2.7	Target location area Id	62
	5.6.2.8	Target cell Id	62
	5.6.2.9	[Spare]	62
	5.6.2.10	Originating entity number	62
	5.6.2.11	MSC number	62
	5.6.2.12	Target MSC number	62
	5.6.2.13	HLR number	62
	5.6.2.14	VLR number	62
	5.6.2.15	HLR Id	62
	5.6.2.16	LMSI	62
	5.6.2.17	MS ISDN	62
	5.6.2.18	OMC Id	63
	5.6.2.19	Roaming number	63
	5.6.2.20	[Spare]	63
	5.6.2.21	Handover number	63
	5.6.2.22	Forwarded-to number	63
	5.6.2.23	Forwarded-to subaddress	63
	5.6.2.24	Called number	63

ETS 300 974 (GSM 09.02 version 5.6.1): January 1998

5.6.2.25	Calling number.....	63
5.6.2.26	Originally dialled number.....	63
5.6.2.27	Service centre address.....	63
5.6.2.28	Zone Code	63
5.6.2.29	MSIsdn-Alert	63
5.6.2.30	Location Information.....	63
5.6.2.31	GMSC Address	63
5.6.2.32	VMSC Address.....	63
5.6.2.33	Group Id	64
5.6.3	Subscriber management parameters.....	64
5.6.3.1	Category.....	64
5.6.3.2	Equipment status	64
5.6.3.3	Extensible Bearer service	64
5.6.3.4	Extensible Teleservice.....	64
5.6.3.5	Extensible Basic Service Group.....	64
5.6.3.6	GSM bearer capability	64
5.6.3.7	Subscriber Status	64
5.6.3.8	CUG Outgoing Access indicator	64
5.6.3.9	Operator Determined Barring General Data	64
5.6.3.10	ODB HPLMN Specific Data.....	65
5.6.3.11	Regional Subscription Data.....	65
5.6.3.12	Regional Subscription Response	65
5.6.3.13	Roaming Restriction Due To Unsupported Feature.....	65
5.6.3.14	Extensible SS-Info.....	65
5.6.3.15	Extensible Forwarding information	65
5.6.3.16	Extensible Forwarding feature.....	65
5.6.3.17	Extensible SS-Status.....	66
5.6.3.18	Extensible Forwarding Options.....	66
5.6.3.19	Extensible No reply condition timer	66
5.6.3.20	Extensible Call barring information.....	66
5.6.3.21	Extensible Call barring feature.....	66
5.6.3.22	CUG info.....	66
5.6.3.23	CUG subscription.....	66
5.6.3.24	CUG interlock.....	66
5.6.3.25	CUG index.....	66
5.6.3.26	CUG feature.....	67
5.6.3.27	Inter CUG options	67
5.6.3.28	Intra CUG restrictions.....	67
5.6.3.29	Extensible SS-Data	67
5.6.3.30	Subscriber State.....	67
5.6.3.31	Requested Info	67
5.6.3.32	Suppression of Announcement	67
5.6.3.33	Suppress T-CSI.....	68
5.6.3.34	GMSC CAMEL Subscription Info.....	68
5.6.3.35	VLR CAMEL Subscription Info	68
5.6.3.36	Supported CAMEL Phases	68
5.6.3.37	CUG Subscription Flag.....	68
5.6.3.38	CAMEL Subscription Info Withdraw.....	68
5.6.3.39	Voice Group Call Service (VGCS) Data	68
5.6.3.40	Voice Broadcast Service (VBS) Data.....	68
5.6.4	Supplementary services parameters	68
5.6.4.1	SS-Code	68
5.6.4.2	SS-Status.....	69
5.6.4.3	SS-Data.....	69
5.6.4.4	Override Category	69
5.6.4.5	CLI Restriction Option	69
5.6.4.6	Forwarding Options.....	69
5.6.4.7	No reply condition timer	69
5.6.4.8-5.6.4.14	[spare].....	69
5.6.4.15	Forwarding information.....	69

iTeh STANDARD PREVIEW
(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/b9a5f861-f86a-43c7-a94c-bc18705902f5/sist-ets-300-974-e3-2003>

5.6.4.16	Forwarding feature.....	70
5.6.4.17	spare	70
5.6.4.18	Call barring information.....	70
5.6.4.19	Call barring feature.....	70
5.6.4.20	New password.....	70
5.6.4.21	Current password	70
5.6.4.22	Guidance information.....	70
5.6.4.23	[Spare].....	71
5.6.4.24	SS-Info.....	71
5.6.4.25-5.6.4.35	[Spare].....	71
5.6.4.36	USSD Data Coding Scheme.....	71
5.6.4.37	USSD String	71
5.6.4.38	Bearer service	71
5.6.4.39	Teleservice.....	71
5.6.4.40	Basic Service Group.....	71
5.6.4.41	eMLPP information.....	71
5.6.5	Call parameters.....	71
5.6.5.1	Call reference number	71
5.6.5.2	Interrogation type.....	72
5.6.5.3	OR interrogation	72
5.6.5.4	OR capability.....	72
5.6.5.5	Forwarding reason	72
5.6.5.6	Forwarding interrogation required.....	72
5.6.5.7	O-CSI	72
5.6.6	Radio parameters.....	72
5.6.6.1-5.6.6.6	[Spare].....	72
5.6.6.7	HO-Number Not Required	72
5.6.7	Authentication parameters.....	72
5.6.7.1	Authentication set list.....	72
5.6.7.2	Rand.....	72
5.6.7.3	Sres.....	73
5.6.7.4	Kc.....	73
5.6.7.5	[Spare].....	73
5.6.7.6	Cksn.....	73
5.6.7.7	Ciphering mode.....	73
5.6.8	Short message parameters	73
5.6.8.1	SM-RP-DA	73
5.6.8.2	SM-RP-OA.....	73
5.6.8.3	MWD status	73
5.6.8.4	SM-RP-UI.....	73
5.6.8.5	SM-RP-PRI	73
5.6.8.6	SM Delivery Outcome.....	74
5.6.8.7	More Messages To Send	74
5.6.8.8	Alert Reason.....	74
5.6.9	Access and signalling system related parameters.....	74
5.6.9.1	BSS-apdu.....	74
5.6.9.2	CM service type.....	74
5.6.9.3	Access connection status.....	74
5.6.9.4	External Signal Information.....	74
5.6.9.5	Access signalling information.....	74
5.6.9.6	Location update type	75
5.6.9.7	Protocol ID	75
5.6.9.8	Network signal information	75
5.6.10	System operations parameters	76
5.6.10.1	Network resources.....	76
5.6.10.2	Trace reference	76
5.6.10.3	Trace type.....	76
5.7	Representation of a list of a basic parameter in service-primitives	76
6	Mobility services	77

6.1	Location management services.....	77
6.1.1	MAP_UPDATE_LOCATION_AREA service	77
6.1.1.1	Definition	77
6.1.1.2	Service primitives.....	77
6.1.1.3	parameter definitions and use	77
6.1.2	MAP_UPDATE_LOCATION service	78
6.1.2.1	Definition	78
6.1.2.2	Service primitives.....	78
6.1.2.3	Parameter definitions and use	78
6.1.3	MAP_CANCEL_LOCATION service	79
6.1.3.1	Definition	79
6.1.3.2	Service primitives.....	80
6.1.3.3	Parameter definitions and use	80
6.1.4	MAP_SEND_IDENTIFICATION service	80
6.1.4.1	Definition	80
6.1.4.2	Service primitives.....	80
6.1.4.3	Parameter definitions and use	81
6.1.5	MAP_DETACH_IMSI service.....	81
6.1.5.1	Definition	81
6.1.5.2	Service primitives.....	81
6.1.5.3	Parameter definitions and use	81
6.1.6	MAP_PURGE_MS service	82
6.1.6.1	Definition	82
6.1.6.2	Service primitives.....	82
6.1.6.3	Parameter definitions and use	82
6.2	Paging and search.....	82
6.2.1	MAP_PAGE service.....	82
6.2.1.1	Definition	82
6.2.1.2	Service primitives	83
6.2.1.3	Parameter definitions and use	83
6.2.2	MAP_SEARCH_FOR_MS service.....	83
6.2.2.1	Definition	83
6.2.2.2	Service primitives.....	84
6.2.2.3	Parameter definitions and use	84
6.3	Access management services	84
6.3.1	MAP_PROCESS_ACCESS_REQUEST service	84
6.3.1.1	Definition	84
6.3.1.2	Service primitives.....	85
6.3.1.3	Parameter definitions and use	85
6.4	Handover services	86
6.4.1	MAP_PREPARE_HANDOVER service	86
6.4.1.1	Definition	86
6.4.1.2	Service primitives.....	86
6.4.1.3	Parameter use.....	86
6.4.2	MAP_SEND_END_SIGNAL service.....	87
6.4.2.1	Definition	87
6.4.2.2	Service primitives.....	87
6.4.2.3	Parameter use.....	87
6.4.3	MAP_PROCESS_ACCESS_SIGNALLING service	88
6.4.3.1	Definition	88
6.4.3.2	Service primitives.....	88
6.4.3.3	Parameter use.....	88
6.4.4	MAP_FORWARD_ACCESS_SIGNALLING service	88
6.4.4.1	Definition	88
6.4.4.2	Service primitives.....	88
6.4.4.3	Parameter use.....	89
6.4.5	MAP_PREPARE_SUBSEQUENT_HANDOVER service	89
6.4.5.1	Definition	89
6.4.5.2	Service primitives.....	89
6.4.5.3	Parameter use.....	89

6.4.6	MAP_ALLOCATE_HANOVER_NUMBER service	90
6.4.6.1	Definition	90
6.4.6.2	Service primitives	90
6.4.6.3	Parameter use	90
6.4.7	MAP_SEND_HANOVER_REPORT service	90
6.4.7.1	Definition	90
6.4.7.2	Service primitives	90
6.4.7.3	Parameter use	91
6.5	Authentication management services	91
6.5.1	MAP_AUTHENTICATE service	91
6.5.1.1	Definition	91
6.5.1.2	Service primitives	91
6.5.1.3	Parameter use	91
6.5.2	MAP_SEND_AUTHENTICATION_INFO service	92
6.5.2.1	Definition	92
6.5.2.2	Service primitives	92
6.5.2.3	Parameter use	92
6.6	Security management services	93
6.6.1	MAP_SET_CIPHERING_MODE service	93
6.6.1.1	Definitions	93
6.6.1.2	Service primitives	93
6.6.1.3	Parameter use	93
6.7	International mobile equipment identities management services	93
6.7.1	MAP_CHECK_IMEI service	93
6.7.1.1	Definition	93
6.7.1.2	Service primitives	93
6.7.1.3	Parameter use	94
6.7.2	MAP_OBTAIN_IMEI service	94
6.7.2.1	Definition	94
6.7.2.2	Service primitives	94
6.7.2.3	Parameter use	95
6.8	Subscriber management services	95
6.8.1	MAP_INSERT_SUBSCRIBER_DATA service	95
6.8.1.1	Definition	95
6.8.1.2	Service primitives	96
6.8.1.3	Parameter use	96
6.8.1.4	Basic service information related to supplementary services	102
6.8.2	MAP_DELETE_SUBSCRIBER_DATA service	102
6.8.2.1	Definition	102
6.8.2.2	Service primitives	103
6.8.2.3	Parameter use	103
6.9	Identity management services	104
6.9.1	MAP_PROVIDE_IMSI service	104
6.9.1.1	Definition	104
6.9.1.2	Service primitives	105
6.9.1.3	Parameter use	105
6.9.2	MAP_FORWARD_NEW_TMSI service	105
6.9.2.1	Definition	105
6.9.2.2	Service primitives	105
6.9.2.3	Parameter use	105
6.10	Fault recovery services	105
6.10.1	MAP_RESET service	105
6.10.1.1	Definition	105
6.10.1.2	Service primitives	106
6.10.1.3	Parameter definition and use	106
6.10.2	MAP_FORWARD_CHECK_SS_INDICATION service	106
6.10.2.1	Definition	106
6.10.2.2	Service primitives	106
6.10.2.3	Parameter definition and use	106

6.10.3	MAP_RESTORE_DATA service	106
6.10.3.1	Definition	106
6.10.3.2	Service primitives	107
6.10.3.3	Parameter definitions and use	107
6.11	Subscriber Information services	108
6.11.1	MAP-ANY-TIME-INTERROGATION service	108
6.11.1.1	Definition	108
6.11.1.2	Service primitives	108
6.11.1.3	Parameter definition and use	108
6.11.2	MAP-PROVIDE-SUBSCRIBER-INFO service	109
6.11.2.1	Definition	109
6.11.2.2	Service primitives	109
6.11.2.3	Parameter definition and use	109
7	Operation and maintenance services	110
7.1	Subscriber tracing services	110
7.1.1	MAP-ACTIVATE-TRACE-MODE service	110
7.1.1.1	Definition	110
7.1.1.2	Service primitives	110
7.1.1.3	Parameter use	110
7.1.2	MAP-DEACTIVATE-TRACE-MODE service	111
7.1.2.1	Definition	111
7.1.2.2	Service primitives	111
7.1.2.3	Parameter use	111
7.1.3	MAP-TRACE-SUBSCRIBER-ACTIVITY service	111
7.1.3.1	Definition	111
7.1.3.2	Service primitives	112
7.1.3.3	Parameter use	112
7.2	Other operation and maintenance services	112
7.2.1	MAP-SEND-IMSI service	112
7.2.1.1	Definition	112
7.2.1.2	Service primitives	112
7.2.1.3	Parameter use	113
8	Call handling services	114
8.1	MAP_SEND_ROUTING_INFORMATION service	115
8.1.1	Definition	115
8.1.2	Service primitives	115
8.1.3	Parameter use	115
8.2	MAP_PROVIDE_ROAMING_NUMBER service	119
8.2.1	Definition	119
8.2.2	Service primitives	119
8.2.3	Parameter use	119
8.3	MAP_RESUME_CALL_HANDLING service	121
8.3.1	Definition	121
8.3.2	Service primitives	121
8.3.3	Parameter use	121
9	Supplementary services related services	123
9.1	MAP_REGISTER_SS service	123
9.1.1	Definition	123
9.1.2	Service primitives	123
9.1.3	Parameter use	123
9.2	MAP_ERASE_SS service	124
9.2.1	Definition	124
9.2.2	Service primitives	124
9.2.3	Parameter use	124
9.3	MAP_ACTIVATE_SS service	126
9.3.1	Definition	126

iTeh STANDARD PREVIEW
(standards.itih.ai)

<https://standards.itih.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-be18705902f5/sist-ets-300-974-e3-2003>

	9.3.2	Service primitives.....	126
	9.3.3	Parameter use.....	126
9.4		MAP_DEACTIVATE_SS service	127
	9.4.1	Definitions	127
	9.4.2	Service primitives.....	127
	9.4.3	Parameter use.....	128
9.5		MAP_INTERROGATE_SS service	129
	9.5.1	Definitions	129
	9.5.2	Service primitives.....	129
	9.5.3	Parameter use.....	129
9.6		MAP_INVOKE_SS service	131
	9.6.1	Definitions	131
	9.6.2	Service primitives.....	131
	9.6.3	Parameter use.....	131
9.7		MAP_REGISTER_PASSWORD service	132
	9.7.1	Definitions	132
	9.7.2	Service primitives.....	132
	9.7.3	Parameter use.....	132
9.8		MAP_GET_PASSWORD service	133
	9.8.1	Definitions	133
	9.8.2	Service primitives.....	133
	9.8.3	Parameter use.....	133
9.9		MAP_PROCESS_UNSTRUCTURED_SS_REQUEST service	133
	9.9.1	Definitions	133
	9.9.2	Service primitives.....	134
	9.9.3	Parameter use.....	134
9.10		MAP_UNSTRUCTURED_SS_REQUEST service	134
	9.10.1	Definitions	134
	9.10.2	Service primitives.....	135
	9.10.3	Parameter use.....	135
9.11		MAP_UNSTRUCTURED_SS_NOTIFY service	136
	9.11.1	Definitions	136
	9.11.2	Service primitives.....	136
	9.11.3	Parameter use.....	136
10		Short message service management services	138
10.1		MAP-SEND-ROUTING-INFO-FOR-SM service	138
	10.1.1	Definition	138
	10.1.2	Service primitives.....	138
	10.1.3	Parameter use.....	138
10.2		MAP-MO-FORWARD-SHORT-MESSAGE service	139
	10.2.1	Definition	139
	10.2.2	Service primitives.....	139
	10.2.3	Parameter use.....	139
10.3		MAP-REPORT-SM-DELIVERY-STATUS service	140
	10.3.1	Definition	140
	10.3.2	Service primitives.....	140
	10.3.3	Parameter use.....	141
10.4		MAP-READY-FOR-SM service	141
	10.4.1	Definition	141
	10.4.2	Service primitives.....	142
	10.4.3	Parameter use.....	142
10.5		MAP-ALERT-SERVICE-CENTRE service	142
	10.5.1	Definition	142
	10.5.2	Service primitives.....	143
	10.5.3	Parameter use.....	143
10.6		MAP-INFORM-SERVICE-CENTRE service	143
	10.6.1	Definition	143
	10.6.2	Service primitives.....	143
	10.6.3	Parameter use.....	144

10.7	MAP-SEND-INFO-FOR-MT-SMS service	144
10.7.1	Definition.....	144
10.7.2	Service primitives.....	144
10.7.3	Parameter use	144
10.8	MAP-SEND-INFO-FOR-MO-SMS service	145
10.8.1	Definition.....	145
10.8.2	Service primitives.....	145
10.8.3	Parameter use	145
10.9	MAP-MT-FORWARD-SHORT-MESSAGE service	146
10.9.1	Definition.....	146
10.9.2	Service primitives.....	146
10.9.3	Parameter use	146
11	General	148
11.1	Overview	148
11.2	Underlying services.....	148
11.3	Model	148
11.4	Conventions	148
12	Elements of procedure	149
12.1	Dialogue establishment	149
12.1.1	Handling of unknown operations.....	149
12.1.2	Receipt of a MAP-OPEN request primitive.....	150
12.1.3	Receipt of a TC-BEGIN indication	150
12.1.4	Receipt of a MAP-OPEN response	153
12.1.5	Receipt of the first TC-CONTINUE ind.....	153
12.1.6	Receipt of a TC-END ind.....	153
12.1.7	Receipt of a TC-U-ABORT ind.....	153
12.1.8	Receipt of a TC-P-ABORT ind.....	154
12.2	Dialogue continuation	154
12.2.1	Sending entity.....	154
12.2.2	Receiving entity.....	154
12.3	Dialogue termination	154
12.3.1	Receipt of a MAP-CLOSE request.....	154
12.3.2	Receipt of a TC-END indication.....	155
12.4	User Abort	155
12.4.1	MAP-U-ABORT request.....	155
12.4.2	TC-U-ABORT ind.....	155
12.5	Provider Abort.....	155
12.5.1	MAP PM error situation.....	155
12.5.2	TC-P-ABORT ind.....	155
12.5.3	TC-U-ABORT ind.....	156
12.6	Procedures for MAP specific services	156
12.6.1	Service invocation.....	156
12.6.2	Service invocation receipt.....	156
12.6.3	Service response.....	157
12.6.4	Receipt of a response.....	158
12.6.4.1	Receipt of a TC-RESULT-NL indication.....	158
12.6.4.2	Receipt of a TC-RESULT-L indication.....	158
12.6.4.3	Receipt of a TC-U-ERROR indication	159
12.6.4.4	Receipt of a TC-INVOKE indication	159
12.6.4.5	Receipt of a TC-U-REJECT indication.....	159
12.6.4.6	Receipt of a TC-L-REJECT indication.....	160
12.6.4.7	Receipt of a TC-L-CANCEL indication.....	160
12.6.4.8	Receipt of a TC-NOTICE indication	160
12.6.5	Other events	160
12.6.5.1	Receipt of a TC-U-REJECT	161
12.6.5.2	Receipt of a TC-R-REJECT indication	161
12.6.5.3	Receipt of a TC-L-REJECT indication.....	161
12.6.6	Parameter checks	161

12.6.7	Returning state machines to idle.....	161
12.6.8	Load control	162
13	Mapping on to TC services	163
13.1	Dialogue control.....	163
13.1.1	Directly mapped parameters.....	163
13.1.2	Use of other parameters of dialogue handling primitives.....	163
13.1.2.1	Dialogue Id	163
13.1.2.2	Application-context-name	163
13.1.2.3	User information.....	163
13.1.2.4	Component present.....	163
13.1.2.5	Termination.....	163
13.1.2.6	P-Abort-Cause.....	163
13.1.2.7	Quality of service	163
13.2	Service specific procedures.....	164
13.2.1	Directly mapped parameters.....	164
13.2.2	Use of other parameters of component handling primitives	164
13.2.2.1	Dialogue Id	164
13.2.2.2	Class	164
13.2.2.3	Linked Id	164
13.2.2.4	Operation	164
13.2.2.5	Error	165
13.2.2.6	Parameters	165
13.2.2.7	Time out.....	166
13.2.2.8	Last component	166
13.2.2.9	Problem code	166
13.2.2.9.1	Mapping to MAP User Error	166
13.2.2.9.2	Mapping to MAP Provider Error parameter	166
13.2.2.9.3	Mapping to diagnostic parameter	166
13.3	SDL descriptions	167
14	Abstract syntax of the MAP protocol	193
14.1	General	193
14.1.1	Encoding rules.....	193
14.1.2	Use of TC	193
14.1.2.1	Use of Global Operation and Error codes defined outside MAP.....	194
14.1.3	Use of information elements defined outside MAP	194
14.1.4	Compatibility considerations.....	195
14.1.5	Structure of the Abstract Syntax of MAP	195
14.1.6	Application Contexts.....	196
14.2	Operation packages	198
14.2.1	General aspects	198
14.2.2	Packages specifications	198
14.2.2.1	Location updating.....	198
14.2.2.2	Location cancellation	199
14.2.2.3	Roaming number enquiry	199
14.2.2.4	Information retrieval.....	199
14.2.2.5	Inter-VLR information retrieval.....	199
14.2.2.6	IMSI retrieval.....	199
14.2.2.7	Call control transfer	200
14.2.2.8-14.2.2.9 [spare]		200
14.2.2.10	Interrogation	200
14.2.2.11	[spare]	200
14.2.2.12	Handover Control	201
14.2.2.13	Subscriber Data management stand alone	201
14.2.2.14	Equipment management	201
14.2.2.15	Subscriber data management.....	201
14.2.2.16	Location register restart	202
14.2.2.17	Tracing stand-alone.....	203

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 974 E3:2003

<https://standards.iteh.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-be18705902f5/sist-ets-300-974-e3-2003>

	14.2.2.18	Functional SS handling.....	203
	14.2.2.19	Tracing.....	203
	14.2.2.20	[spare]	203
	14.2.2.21	Unstructured SS handling.....	203
	14.2.2.22	MO Short message relay services.....	204
	14.2.2.23	Short message gateway services.....	204
	14.2.2.24	MT Short message relay services	204
	14.2.2.25	[spare]	204
	14.2.2.26	Message waiting data management	204
	14.2.2.27	Alerting	205
	14.2.2.28	Data restoration.....	205
	14.2.2.29	Purging	205
	14.2.2.30	Subscriber information enquiry	205
	14.2.2.31	Any time information enquiry	205
14.3	Application contexts.....		206
14.3.1	General aspects.....		206
14.3.2	Application context definitions		207
	14.3.2.1	[spare]	207
	14.3.2.2	Location Updating	207
	14.3.2.3	Location Cancellation	207
	14.3.2.4	Roaming number enquiry	207
	14.3.2.5	[spare]	207
	14.3.2.6	Location Information Retrieval.....	207
	14.3.2.7	Call control transfer.....	208
	14.3.2.8	- 14.3.2.10 [spare].....	208
	14.3.2.11	Location registers restart.....	209
	14.3.2.12	Handover control.....	209
	14.3.2.13	IMSI Retrieval.....	209
	14.3.2.14	Equipment Management.....	209
	14.3.2.15	Information retrieval	209
	14.3.2.16	Inter-VLR information retrieval.....	210
	14.3.2.17	Stand Alone Subscriber Data Management	211
	14.3.2.18	Tracing.....	211
	14.3.2.19	Network functional SS handling	211
	14.3.2.20	Network unstructured SS handling	211
	14.3.2.21	Short Message Gateway.....	213
	14.3.2.22	Mobile originating Short Message Relay	213
	14.3.2.23	[spare]	213
	14.3.2.24	Short message alert.....	213
	14.3.2.25	Short message waiting data management.....	213
	14.3.2.26	Mobile terminating Short Message Relay	214
	14.3.2.27	MS purging.....	215
	14.3.2.28	Subscriber information enquiry	215
	14.3.2.29	Any time information enquiry	215
	14.3.3	ASN.1 Module for application-context-names	216
14.4	MAP Dialogue Information.....		219
14.5	MAP operation and error codes.....		221
14.6	MAP operation and error types.....		227
	14.6.1	Mobile Service Operations	227
	14.6.2	Operation and Maintenance Operations.....	233
	14.6.3	Call Handling Operations	235
	14.6.4	Supplementary service operations.....	237
	14.6.5	Short message service operations	241
	14.6.6	Errors.....	244
14.7	MAP constants and data types.....		249
	14.7.1	Mobile Service data types	249
	14.7.2	Operation and maintenance data types	259
	14.7.3	Call handling data types	260
	14.7.4	Supplementary service data types	263
	14.7.5	Supplementary service codes.....	266

iTeh STANDARD PREVIEW
(standards.iteh.ai)

https://standards.iteh.ai/catalog/standards/sist/b9e5f8fd-f86a-43c7-a94c-bd18705902f5/sist-ets-300-974-e3-2003