INAP API Library for Solaris

Release Notes for INAP API V1.1.0

1 Overview

This release expands the INAP API to support the CAMEL Version 4 Protocol.

Various corrections have also been introduced to the other protocols supported by the API. All protocols, except for the AIN protocol, have had corrections. The corrections are listed in Section 3.

2 New Functionality

2.1 CAMEL VERSION 4 Protocol Support

The INAP API module now fully supports the CAMEL Version 4 Protocol. The CAMEL V4 Specification supported by the module is 3GPP TS 29.078 7.3.0 (2006-06).

A supplement is included with these notes to describe the CAMEL V4 operations and their parameters.

3 Faults cleared

3.1 Finding NULL length parameters after recovery

It was found that if the last recovered parameter in the ‘cpt’ structure was NULL length, then the IN_get_component_param() function fails to find the parameter. This has been fixed in this release.

3.2 AchBillingChargingCharacteristics now fully defined for CAMEL V2

The CAMEL v2 protocol no longer represents the Apply Charging operation’s AchBillingChargingCharacteristics type as a single parameter. The type is now defined using the sequences and parameters from the specification.

3.3 SuppressionofAnnouncement parameter changed to be NULL length

The INPN_SuppressionOfAnnouncement parameter has changed to force it to be coded and decoded as a NULL length parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.4 OCSIApplicable parameter changed to be NULL length

The INPN_OCSIApplicable parameter has changed to force it to be coded and decoded as a NULL length parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.5 SubscriberState table parameters changed to NULL length

The parameters assumedIdle, camelBusy and notProvidedFromVLR in the SubscriberState table have been changed to force them to be coded and decoded as a NULL length parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.6 ExtensionContainer now coded and decoded as a SEQ parameter

The ExtensionContainer changed to be ASN.1 coded as a SEQ (as per specification) although it is still specified by the user as a parameter and recovered to a parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.7 All error code values are now checked for validity

Previously the code accepted error codes greater than 31 as valid. This has been changed so that any error code value returns the expected result. This change affects all protocols and the API functions :IN_set_error and IN_decode_error.

3.8 Call Segment ID for CS-2 PlayAnnouncement now optional

For the ETSI CS-2 protocol, the INPN_CallSegmentID parameter for the Play Announcement operation has been changed from a mandatory parameter to an optional parameter to match the specification.

3.9 Recovery of GenericNumbers Corrected

The coding of GenericNumbers has been corrected so that numbers after the first are recoverable. This change affects the following protocols : CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.10 LocationInformationGPRS table parameters revised

Some parameters for the LocationInformationGPRS table have been revised. The parameters INPN_SGSNumber, INPN_SelectLSAIdentity and INPN_SAIPresent are replaced by the new parameters INPN_LocationInformationGPRS_SGSNumber,

INPN_LocationInformationGPRS_SelectLSAIdentity and INPN_LocationInformationGPRS_SAIPresent. This has been done to prevent possible parameter duplication. This change affects the following protocols : CAMEL V3 and CAMEL V4, and the operations : InitialDPGPRS, EventReportGPRS and InitialDPSMS.

3.11 cGEncountered Parameter enabled for the InitialDP Operation

The cGEncountered parameter for the InitialDP operation is now usable for the CAMEL V3 protocol. In previous releases the parameter was disabled for this protocol.

3.12 Extensions Parameter removed from the ResetTimerGPRS Operation

The Extensions parameter has been removed from the ResetTimerGPRS operation for the CAMEL v3 protocol, since it is not in the specification.

3.13 Enable error for FurnishChargingInformationGPRS Operation

The ‘unknownPDPID’ error code is now recognised for the FurnishChargingInformationGPRS operation for the CAMEL V3 protocol.

3.14 ChargingRollOver table Now Usable

A problem has been corrected in the implementation of the CAMEL V3 ApplyChargingReportGPRS operation. The problem prevented user parameters defined for the ChargingRollOver table being recognised.

3.15 ApplyCharging PartyToCharge parameter changed

For the CAMEL v3 ApplyCharging operation, the PartyToCharge parameter has been changed from LegID to SendingSideID.

3.16 Parameter INPN_MiscCall_Ellipsis removed

The INPN_MiscCall_Ellipsis parameter has been removed from the MiscCallInfo table in the EventReportBCSM, EventReportSMS and EventReportGPRS operations for the CAMEL v3 protocol, since it is not in the specification.

4 Known Limitations

4.1 Number of BCSM Events

For CAMEL v4, the maximum number of BCSM events should be increased to 30 (from 10 for CAMEL v3). For implementation reasons the number of possible BCSM events for CAMEL v4 has only been increased to 16.

4.2 Default Values set on Parameters in Sub-tables

Due to implementation reasons, parameter DEFAULT values set for parameter defined in a sub-table of the current table are not recovered into the parameter structure when a received component is processed. These parameters are coded to be Optional. DEFAULT values for the current table will be correctly processed.

Dialogic
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SUPPLEMENT TO RELEASE NOTES FOR CAMEL v4 OPERATIONS

1 Introduction

This supplement lists the available operations and parameters defined for the CAMEL Version 4 protocol (3GPP TS 29.078 7.3.0).

The information in this document is to be incorporated into the Dialogic INAP Programmer's Manual – U16SSS.

1.1 Supported INAP Application Contexts

1.1.1 CAMEL v4

Specification: CAMEL Application Part (CAP) 3GPP TS 29.078 7.3.0 (2006-06)

Application context	Mnemonic	Value (dec)	Value (hex)
CAP-gsmSSF-scfGenericAC	INCAP_V4_GSMSSF_TO_GSMSCF_GENERIC	112	0x70
CAP-gsmSSF-scfAssistHandoffAC	INCAP_V4_ASSIST_HANDOFF_GSMSSF_TO_GSMSCF	113	0x71
CAP-scf-gsmSSFGenericAC	INCAP_V4_SCF_TO_GSMSSF_GENERIC	114	0x72
gsmSRF-gsmSCF	INCAP_V4_GSMSRF_TO_GSMSCF	115	0x73
CAP-gprsSSF-gsmSCF-AC	INCAP_V4_GPRSSSF_TO_GSMSCF	116	0x74
CAP-gsmSCF-gprsSSF-AC	INCAP_V4_GSMSCF_TO_GPRSSSF	117	0x75
cap4-sms-AC	INCAP_V4_SMS	118	0x76

1.2 CAMEL v4 Operation Definitions

1.2.1 InitialDP

INOP_InitialDP				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
ServiceKey	INPN_ServiceKey	3	0x03	M
CalledPartyNumber	INPN_CalledPartyNumber	5	0x05	O
CallingPartyNumber	INPN_CallingPartyNumber	6	0x06	O
CallingPartysCategory	INPN_CallingPartysCategory	8	0x08	O
cGEncountered	INPN_cGEncountered	10	0x0a	O
IPSSPCapabilities	INPN_IPSSPCapabilities	11	0x0b	O
LocationNumber	INPN_LocationNumber	13	0x0d	O
OriginalCalledPartyID	INPN_OriginalCalledPartyID	15	0x0f	O
Extensions (Section 10.11 Operation Extensions)				O
HighLayerCompatibility	INPN_HighLayerCompatibility	19	0x13	O
AdditionalCallingParty Number	INPN_AdditionalCallingParty Number	21	0x15	O
BearerCapability				O
BearerCapability	INPN_BearerCapability	23	0x17	C2
Ellipsis	INPN_BearerCap_Ellipsis	119	0x77	C2
EventTypeBCSM	INPN_EventTypeBCSM	24	0x18	O
RedirectingPartyID	INPN_RedirectingPartyID	25	0x19	O
RedirectionInformation	INPN_RedirectionInformation	26	0x1a	O
Cause	INPN_Cause	41	0x29	O
ServiceInteractionIndicatorsTwo				O
See sub-table – ServiceInteractionIndicatorsTwo (Section 1.2.1.1)				O2
Carrier	INPN_Carrier	40	0x28	O
CUG-Index	INPN_CUG_Index	644	0x284	O
CUG-Interlock	INPN_CUG_Interlock	645	0x285	O
CUG-OutgoingAccess	INPN_CUG_OutgoingAccess	646	0x286	O
IMSI	INPN_IMSI	130	0x81	O
SubscriberState				O
AssumedIdle	INPN_AssumedIdle	134	0x86	C2
CamelBusy	INPN_CamelBusy	135	0x87	C2

INOP_InitialDP				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
NetDetNotReachable	INPN_NetDetNotReachable	136	0x88	C2
NotProvidedFromVLR	INPN_NotProvidedFromVLR	137	0x89	C2
LocationInformation				O
See sub-table – LocationInformation (Section 1.2.1.2)				O2
Ext_BasicServicesCode				O
BearerServiceCode	INPN_Ext_BearerServiceCode	120	0x78	C2
TeleserviceCode	INPN_Ext_TeleserviceCode	121	0x79	C2
CallReferenceNumber	INPN_CallReferenceNumber	131	0x82	O
MSCAddress	INPN_MSCAddress	132	0x83	O
CalledPartyBCDNumber	INPN_CalledPartyBCDNumber	129	0x80	O
TimeAndTimezone	INPN_TimeAndTimezone	132	0x84	O
CallForwardingSS Pending	INPN_GSM_ForwardingPendin g	133	0x85	O
IDPArgExtension				O
GMSC Address	INPN_GMSCAddress	653	0x28d	O2
ForwardingDestNumber	INPN_ForwardingDestNumber	2776	0xad8	O2
MSClassMark2	INPN_MSClassMark2	2777	0xad9	O2
IMEI	INPN_IMEI	2778	0xada	O2
SupportedCamelPhases	INPN_SupportedCamelPhases	2779	0xadb	O2
OfferedCamel4Functiona lities	INPN_OfferedCamel4 Functionalities	2780	0xadc	O2
BearerCapability2				O2
BearerCapability2	INPN_BearerCapability2	2771	0xad3	O3
Ext_BasicServiceCode2				O2
Ext_BearerServiceCode 2	INPN_Ext_BearerServiceCode2	2764	0xacc	C3
Ext_TeleserviceCode2	INPN_Ext_TeleserviceCode2	2765	0xacd	C3
HighLayerCompatibility2	INPN_HighLayerCompatibility2	2781	0xadd	O2
LowLayerCompatibility	INPN_LowLayerCompatibility	2782	0xade	O2
LowLayerCompatibility2	INPN_LowLayerCompatibility2	2783	0xadf	O2
Ellipsis	INPN_InitialDPArgExt_Ellipsis	117	0x75	A2
EnhancedDialledService sAllowed	INPN_EnhancedDialledServices Allowed	2784	0xae0	O2
UU_Data				O2
UUIndicator	INPN_UUIndicator	2773	0xad5	O3
UUI	INPN_UUI	2774	0xad6	O3

INOP_InitialDP				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
uusCFInteraction	INPN_uusCFInteraction	2775	0xad7	O3
UU_ExtensionContainer	INPN_UU_ExtensionContainer	4230	0x1086	O3
Ellipsis	INPN_UU_Ellipsis	4216	0x1078	A3
CollectInformation Allowed	INPN_collectInformationAllowed	2785	0xae1	O2
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.1.1 ServiceInteractionIndicatorsTwo (sub-table)

ServiceInteractionIndicatorsTwo				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
ForwardServiceInteractionInd				O
ConferenceTreatment Indicator	INPN_Fw_Conference TreatmentInd	711	0x2c7	O2
CallDiversionTreatment Indicator	INPN_CallDiversionTreatment Ind	712	0x2c8	O2
CallingPartyRestriction Indicator	INPN_CallingPartyRestriction Ind	714	0x2ca	O2
Ellipsis	INPN_ForwardServIntInd _Ellipsis	1402	0x57a	A2
BackwardServiceInteractionInd				O
ConferenceTreatment Indicator	INPN_Bw_Conference TreatmentInd	710	0x2c6	O2
CallCompletion TreatmentIndicator	INPN_CallCompletionTreatment Ind	716	0x2cc	O2
Ellipsis	INPN_BackwardServIntInd _Ellipsis	1403	0x57b	A2
BothwayThrough ConnectionInd	INPN_BothwayThrough ConnectionIndicator	111	0x6f	O
ConnectedNumber Treatment	INPN_ConnectedNumber Treatment	718	0x2ce	O
NonCUGCall	INPN_NonCUGCall	663	0x297	O
HoldTreatmentIndicator	INPN_HoldTreatmentInd	656	0x290	O
CWTreatmentIndicator	INPN_CWTreatmentInd	647	0x287	O
ECTTreatmentindicator	INPN_ECTTreatmentind	709	0x2c5	O
Ellipsis	INPN_ServIntActInd2_Ellipsis	1404	0x57c	A

1.2.1.2 LocationInformation (sub-table)

LocationInformation				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
AgeOfLocation Information	INPN_AgeOfLocation Information	124	0x7c	O
GeographicalInformation	INPN_GeographicalInformation	125	0x7d	O
Vlr_Number	INPN_Vlr_Number	126	0x7e	O
LocationNumber	INPN_LI_LocationNumber	127	0x7f	O
CellGlobalIdOrServiceAreaIdOrLAI				O
CellGlobalIdOrService AreaIdFixedLength	INPN_CellIdFixedLength	122	0x7a	C2
LAIFixedLength	INPN_LAIFixedLength	123	0x7b	C2
ExtensionContainer	INPN_ExtensionContainer	128	0x80	O
Ellipsis	INPN_LocationInfo_Ellipsis	114	0x72	A
SelectLSA-Id	INPN_SelectLSAIdentity	765	0x2fd	O
ISDNAddressString	INPN_ISDNAddressString	726	0x2d6	O
GeodeticInformation	INPN_GeodeticInformation	4229	0x1085	O
CurrentLocation Retrieved	INPN_CurLocRetrieved	4228	0x1084	O
SAI-Present	INPN_SAIPresent	763	0x2fb	O

1.2.2 AssistRequestInstructions

INOP_AssistRequestInstructions				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CorrelationID	INPN_CorrelationID	31	0x1f	M
IPSSPCapabilities	INPN_IPSSPCapabilities	11	0x0b	M
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.3 EstablishTemporaryConnection

INOP_EstablishTemporaryConnection				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
AssistingSSPIPRouting Address	INPN_AssistingSSPIPRouting Address	102	0x66	M
CorrelationID	INPN_CorrelationID	31	0x1f	O
ScfID	INPN_ScfID	38	0x26	O
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Carrier	INPN_Carrier	40	0x28	O
ServiceInteractionIndicatorsTwo				O
See sub-table – ServiceInteractionIndicatorsTwo (Section 1.2.1.1)				O2
CallSegmentId	INPN_CallSegmentID	320	0x140	O
NAOliInfo	INPN_NAOliInfo	141	0x8d	O
ChargeNumber	INPN_ChargeNumber	642	0x282	O
Ellipsis	INPN_Ellipsis	112	0x70	A
OriginalCalledPartyID	INPN_OriginalCalledPartyID	15	0x0f	O
CallingPartyNumber	INPN_CallingPartyNumber	6	0x06	O

1.2.4 DisconnectForwardConnection

INOP_DisconnectForwardConnection				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.5 dFCWithArgument

INOP_DFC_with_Argument				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CallSegmentID	INPN_CallSegmentID	320	0x140	O
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.6 ConnectToResource

INOP_ConnectToResource				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
ResourceAddress				M
IPRoutingAddress	INPN_IPRoutingAddress	31	0x1f	C2
None	INPN_None	650	0x28a	C2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
ServiceInteractionIndicatorsTwo				O
See sub-table – ServiceInteractionIndicatorsTwo (Section 1.2.1.1)				O2
CallSegmentID	INPN_CallSegmentID	320	0x140	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.7 Connect

INOP_Connect				
Parameter	Mnemonic	Value		
		dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
DestinationRouting Address	INPN_DestinationRouting Address(0)	27	0x1b	M
AlertingPattern	INPN_AlertingPattern	30	0x1e	O
OriginalCalledPartyID	INPN_OriginalCalledPartyID	15	0x0f	O
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Carrier	INPN_Carrier	40	0x28	O
CallingPartysCategory	INPN_CallingPartysCategory	8	0x08	O
RedirectingPartyID	INPN_RedirectingPartyID	25	0x19	O
RedirectionInformation	INPN_RedirectionInformation	26	0x1a	O
GenericNumbers (SET, size = 1 to 5)				O
GenericNumber	INPN_GenericNumber(n)	67 to 71	0x43 to 0x47	O2
ServiceInteractionIndicatorsTwo				O
See sub-table – ServiceInteractionIndicatorsTwo (Section 1.2.1.1)				O2
ChargeNumber	INPN_ChargeNumber	642	0x282	O
LegID				O
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C2
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C2
CUG-Interlock	INPN_CUG_Interlock	645	0x285	O
CUG-OutgoingAccess	INPN_CUG_OutgoingAccess	646	0x286	O
Suppression of Announcement	INPN_SuppressionOf Announcement	109	0x6d	O
OCSIApplicable	INPN_OCSIApplicable	110	0x6e	O
NaOliInfo	INPN_NAOliInfo	141	0x8d	O
BorInterrogation Requested	INPN_BorInterrogation Requested	2787	0xae3	O
Ellipsis	INPN_Ellipsis	112	0x70	A
SuppressNCSI	INPN_SuppressNCSI	2788	0xae4	O

1.2.8 ReleaseCall

INOP_ReleaseCall				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
Cause	INPN_Cause	41	0x29	M

1.2.9 RequestReportBCSMEvent

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
BCSMEvents (SEQUENCE, size = 1 to 16)[1]				M
EventTypeBCSM	INPN_EventTypeBCSM(n)	192 to 207	0xc0 to 0xcf	M2
MonitorMode	INPN_MonitorMode(n)	208 to 223	0xd0 to 0xdf	M2
LegID				O2
SendingSideID	INPN_SendingSideID(n)	224 to 239	0xe0 to 0xef	C3
ReceivingSideID	INPN_ReceivingSideID(n)	240 to 255	0xf0 to 0xff	C3
DPSpecificCriteria				O2
ApplicationTimer	INPN_ApplicationTimer(n)	176 to 191	0xb0 to 0xbf	C3
MidCallControlInfo				C3
MinimumNumberOf DigitsSeq	INPN_MinimumNumberOf DigitsSeq(n)	2789 to 2804	0x to 0x	O4
MaximumNumberOf DigitsSeq	INPN_MaximumNumberOf DigitsSeq(n)	2805 to 2820	0x to 0x	O4
EndOfReplyDigitSeq	INPN_EndOfReplyDigitSeq(n)	2821 to 2836	0x to 0x	O4
CancelDigitSeq	INPN_CancelDigitSeq(n)	2837 to 2852	0x to 0x	O4
StartDigitSeq	INPN_StartDigitSeq(n)	2853	0x to	O4

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
		to 2868	0x	
InterDigitTimeout	INPN_MC_InterDigitTimeout(n)	4265 to 4280	0x to 0x	O4
Ellipsis	INPN_MidCallCtlInfoEllipsis(n)	4249 to 4264	0x to 0x	A4
DpSpecificCriteriaAlt				C3
ChangeOfPositionControlInfo (SEQUENCE, size = 1 to 10)[2]				O4
ChangeOfLocation[0]				O5
CellGlobalId	INPN_CellGlobalId0(n)	2885 to 2900	0xb45 to 0xb54	O6
ServiceAreaId	INPN_ServiceAreaId0(n)	2901 to 2916	0xb55 to 0xb64	O6
LocationAreaId	INPN_LocationAreaId0(n)	2917 to 2932	0xb65 to 0xb74	O6
InterSystemHandOver	INPN_InterSystemHand Over0(n)	2933 to 2948	0xb75 to 0xb84	O6
InterPLMNHandOver	INPN_InterPLMNHandOver0(n)	2949 to 2964	0xb85 to 0xb94	O6
InterMSCHandOver	INPN_InterMSCHandOver0(n)	2965 to 2980	0xb95 to 0xba4	O6
ChangeOfLocationAlt0				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis0(n)	2981 to 2996	0xba5 to 0xbb4	A7
ChangeOfLocation[1]				O5
CellGlobalId	INPN_CellGlobalId1(n)	2997 to 3012	0xbb5 to 0xbc4	O6
ServiceAreaId	INPN_ServiceAreaId1(n)	3013 to 3028	0xbc5 to 0xbd4	O6
LocationAreaId	INPN_LocationAreaId1(n)	3029 to 3044	0xbd5 to 0xbe4	O6
InterSystemHandOver	INPN_InterSystemHand Over1(n)	3045 to 3060	0xbe5 to 0xbf4	O6
InterPLMNHandOver	INPN_InterPLMNHandOver1(n)	3061 to 3076	0xbf5 to 0xc04	O6
InterMSCHandOver	INPN_InterMSCHandOver1(n)	3077	0xc05	O6

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
		to 3092	to 0xc14	
ChangeOfLocationAlt1				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis1(n)	3093 to 3108	0xc15 to 0xc24	A7
ChangeOfLocation[2]				O5
CellGlobalId	INPN_CellGlobalId2(n)	3109 to 3124	0xc25 to 0xc34	O6
ServiceAreaId	INPN_ServiceAreaId2(n)	3125 to 3140	0xc35 to 0xc44	O6
LocationAreaId	INPN_LocationAreaId2(n)	3141 to 3156	0xc45 to 0xc54	O6
InterSystemHandOver	INPN_InterSystemHand Over2(n)	3157 to 3172	0xc55 to 0xc64	O6
InterPLMNHandOver	INPN_InterPLMNHandOver2(n)	3173 to 3188	0xc65 to 0xc74	O6
InterMSCHandOver	INPN_InterMSCHandOver2(n)	3189 to 3204	0xc75 to 0xc84	O6
ChangeOfLocationAlt2				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis2(n)	3205 to 3220	0xc85 to 0xc94	A7
ChangeOfLocation[3]				O5
CellGlobalId	INPN_CellGlobalId3(n)	3221 to 3236	0xc95 to 0xca4	O6
ServiceAreaId	INPN_ServiceAreaId3(n)	3237 to 3252	0xca5 to 0xcb4	O6
LocationAreaId	INPN_LocationAreaId3(n)	3253 to 3268	0xcb5 to 0xcc4	O6
InterSystemHandOver	INPN_InterSystemHand Over3(n)	3269 to 3284	0xcc5 to 0xcd4	O6
InterPLMNHandOver	INPN_InterPLMNHandOver3(n)	3285 to 3300	0xcd5 to 0xce4	O6
InterMSCHandOver	INPN_InterMSCHandOver3(n)	3301 to 3316	0xce5 to 0xcf4	O6
ChangeOfLocationAlt3				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis3(n)	3317 to	0xcf5 to	A7

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
		3332	0xd04	
ChangeOfLocation[4]				O5
CellGlobalId	INPN_CellGlobalId4(n)	3333 to 3348	0xd05 to 0xd14	O6
ServiceAreaId	INPN_ServiceAreaId4(n)	3349 to 3364	0xd15 to 0xd24	O6
LocationAreaId	INPN_LocationAreaId4(n)	3365 to 3380	0xd25 to 0xd34	O6
InterSystemHandOver	INPN_InterSystemHand Over4(n)	3381 to 3396	0xd35 to 0xd44	O6
InterPLMNHandOver	INPN_InterPLMNHandOver4(n)	3397 to 3412	0xd45 to 0xd54	O6
InterMSCHandOver	INPN_InterMSCHandOver4(n)	3413 to 3428	0xd55 to 0xd64	O6
ChangeOfLocationAlt4				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis4(n)	3429 to 3444	0xd65 to 0xd74	A7
ChangeOfLocation[5]				O5
CellGlobalId	INPN_CellGlobalId5(n)	3445 to 3460	0xd75 to 0xd84	O6
ServiceAreaId	INPN_ServiceAreaId5(n)	3461 to 3476	0xd85 to 0xd94	O6
LocationAreaId	INPN_LocationAreaId5(n)	3477 to 3492	0xd95 to 0xda4	O6
InterSystemHandOver	INPN_InterSystemHand Over5(n)	3493 to 3508	0xda5 to 0xdb4	O6
InterPLMNHandOver	INPN_InterPLMNHandOver5(n)	3509 to 3524	0xdb5 to 0xdc4	O6
InterMSCHandOver	INPN_InterMSCHandOver5(n)	3525 to 3540	0xdc5 to 0xdd4	O6
ChangeOfLocationAlt5				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis5(n)	3541 to 3556	0xdd5 to 0xde4	A7
ChangeOfLocation[6]				O5
CellGlobalId	INPN_CellGlobalId6(n)	3557 to	0xde5 to	O6

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
		3572	0xdf4	
ServiceAreaId	INPN_ServiceAreaId6(n)	3573 to 3588	0xdf5 to 0xe04	O6
LocationAreaId	INPN_LocationAreaId6(n)	3589 to 3604	0xe05 to 0xe14	O6
InterSystemHandOver	INPN_InterSystemHand Over6(n)	3605 to 3620	0xe15 to 0xe24	O6
InterPLMNHandOver	INPN_InterPLMNHandOver6(n)	3621 to 3636	0xe25 to 0xe34	O6
InterMSCHandOver	INPN_InterMSCHandOver6(n)	3637 to 3652	0xe35 to 0xe44	O6
ChangeOfLocationAlt6				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis6(n)	3653 to 3668	0xe45 to 0xe54	A7
ChangeOfLocation[7]				O5
CellGlobalId	INPN_CellGlobalId7(n)	3669 to 3684	0xe55 to 0xe64	O6
ServiceAreaId	INPN_ServiceAreaId7(n)	3685 to 3700	0xe65 to 0xe74	O6
LocationAreaId	INPN_LocationAreaId7(n)	3701 to 3716	0xe75 to 0xe84	O6
InterSystemHandOver	INPN_InterSystemHand Over7(n)	3717 to 3732	0xe85 to 0xe94	O6
InterPLMNHandOver	INPN_InterPLMNHandOver7(n)	3733 to 3748	0xe95 to 0xea4	O6
InterMSCHandOver	INPN_InterMSCHandOver7(n)	3749 to 3764	0xea5 to 0xeb4	O6
ChangeOfLocationAlt7				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis7(n)	3765 to 3780	0xeb5 to 0xec4	A7
ChangeOfLocation[8]				O5
CellGlobalId	INPN_CellGlobalId8(n)	3781 to 3796	0xec5 to 0xed4	O6
ServiceAreaId	INPN_ServiceAreaId8(n)	3797 to 3812	0xed5 to 0xee4	O6

INOP_RequestReportBCSMEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
LocationAreaId	INPN_LocationAreaId8(n)	3813 to 3828	0xee5 to 0xef4	O6
InterSystemHandOver	INPN_InterSystemHand Over8(n)	3829 to 3844	0xef5 to 0xf04	O6
InterPLMNHandOver	INPN_InterPLMNHandOver8(n)	3845 to 3860	0xf05 to 0xf14	O6
InterMSCHandOver	INPN_InterMSCHandOver8(n)	3861 to 3876	0xf15 to 0xf24	O6
ChangeOfLocationAlt8				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis8(n)	3877 to 3892	0xf25 to 0xf34	A7
ChangeOfLocation[9]				O5
CellGlobalId	INPN_CellGlobalId9(n)	3893 to 3908	0xf35 to 0xf44	O6
ServiceAreaId	INPN_ServiceAreaId9(n)	3909 to 3924	0xf45 to 0xf54	O6
LocationAreaId	INPN_LocationAreaId9(n)	3925 to 3940	0xf55 to 0xf64	O6
InterSystemHandOver	INPN_InterSystemHand Over9(n)	3941 to 3956	0xf65 to 0xf74	O6
InterPLMNHandOver	INPN_InterPLMNHandOver9(n)	3957 to 3972	0xf75 to 0xf84	O6
InterMSCHandOver	INPN_InterMSCHandOver9(n)	3973 to 3988	0xf85 to 0xf94	O6
ChangeOfLocationAlt9				O6
Ellipsis	INPN_ChangeOfLocation Ellipsis9(n)	3989 to 4004	0xf95 to 0xfa4	A7
NumberOfDigits	INPN_NumberOfDigits(n)	160 to 175	0xa0 to 0xaf	O4
InterDigitTimeout	INPN_InterDigitTimeout(n)	2869 to 2884	0xb35 to 0xb44	O4
Ellipsis	INPN_DpSpecCritAltEllipsis(n)			A4
	INPN_AutomaticRearm(n)	4005 to 4020	0xfa5 to 0xfb4	O2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

[1]The BCSMEvent structure can be repeated up to 16 times for each operation. Replace ‘n’ with the position in the sequence of BCSMEvents starting from 0. The CAP v4 specification indicates that the structure may be repeated up to 30 times. This has not been implemented due to implementation reasons.

[2]The ChangeOfLocation structure can be repeated up to 10 times – for each instance of BCSMEvent. This nesting has required that the instances of the ChangeOfLocation parameters are given unique names, e.g. INPN_ServiceAreaId9(15) for the ServiceAreaId parameter in the 10th instance of ChangeOfLocation within the 16th BCSM Event.

1.2.10 EventReportBCSM

INOP_EventReportBCSM				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
EventTypeBCSM	INPN_EventTypeBCSM(0)[1]	192	0xc0	M
EventSpecificInformationBCSM				O
RouteSelectFailure[2]				C2
FailureCause	INPN_FailureCause	94	0x5e	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
OcalledPartyBusy				C2
BusyCause	INPN_BusyCause	95	0x5f	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
OnoAnswer				C2
--No Info--				
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Oanswer				C2
DestinationAddress	INPN_DestinationAddr	648	0x288	O3
Or-Call	INPN_OrCall	664	0x298	O3
ForwardedCall	INPN_ForwardedCall	651	0x28b	O3
ChargeIndicator	INPN_ChargeIndicator	4182	0x1056	O3
Ext_BasicServiceCode				O3
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode	120	0x78	C4
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode	121	0x79	C4
Ext_BasicServiceCode2				O3
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode2	2764	0xacc	C4
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode2	2765	0xacd	C4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Omidcall				C2
MidCallEvents				O3
DTMFDigitsCompleted	INPN_DTMFDigitsCompleted	4183	0x1057	C4
DTMFDigitsTimeOut	INPN_DTMFDigitsTimeOut	4184	0x1058	C4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Odisconnect				C2
ReleaseCause	INPN_ReleaseCause	96	0x60	O3

INOP_EventReportBCSM				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
TcalledPartyBusy				C2
BusyCause	INPN_BusyCause	95	0x5f	O3
CallForwarded	INPN_CallForwarded	639	0x27f	O3
RouteNotPermitted	INPN_RouteNotPermitted	753	0x2f1	O3
ForwardingDestination Number	INPN_forwardingDestinationNu mber	4185	0x1059	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
TnoAnswer				C2
CallForwarded	INPN_CallForwarded	639	0x27f	O3
ForwardingDestination Number	INPN_forwardingDestinationNu mber	4185	0x1059	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Tanswer				C2
DestinationAddress	INPN_DestinationAddr	648	0x288	O3
Or-Call	INPN_OrCall	664	0x298	O3
ForwardedCall	INPN_ForwardedCall	651	0x28b	O3
ChargeIndicator	INPN_ChargeIndicator	4182	0x1056	O3
Ext_BasicServiceCode				O3
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode	120	0x78	C4
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode	121	0x79	C4
Ext_BasicServiceCode2				O3
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode2	2764	0xacc	C4
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode2	2765	0xacd	C4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Tmidcall				C2
MidCallEvents				O3
DTMFDigitsCompleted	INPN_DTMFDigitsCompleted	4183	0x1057	C4
DTMFDigitsTimeOut	INPN_DTMFDigitsTimeOut	4184	0x1058	C4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Tdisconnect				C2
ReleaseCause	INPN_ReleaseCause	96	0x60	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
OtermSeized				C2
LocationInformation				O3

INOP_EventReportBCSM				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
See sub-table – LocationInformation (Section 1.2.1.2)				O4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
CallAccepted				C2
LocationInformation				O3
See sub-table – LocationInformation (Section 1.2.1.2)				O4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
Oabandon				C2
RouteNotPermitted	INPN_RouteNotPermitted	753	0x2f1	O3
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
OchangeOfPosition				C2
LocationInformation				O3
See sub-table – LocationInformation (Section 1.2.1.2)				O4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
MetDPCriteriaList (SEQUENCE, size = 1 to 10)[3]				O3
EnteringCellGlobalId	INPN_EnteringCellGlobalId(n)	4053 to 4062	0xfd5 to 0xfde	C4
LeavingCellGlobalId	INPN_LeavingCellGlobalId(n)	4063 to 4072	0xfdf to 0xfe8	C4
EnteringServiceAreaId	INPN_EnteringServiceAreaId(n)	4073 to 4082	0xfe9 to 0xff2	C4
LeavingServiceAreaId	INPN_LeavingServiceAreaId(n)	4083 to 4092	0xff3 to 0xffc	C4
EnteringLocationAreaId	INPN_EnteringLocation AreaId(n)	4093 to 4102	0xffd to 0x1006	C4
LeavingLocationAreaId	INPN_LeavingLocationAreaId(n)	4103 to 4112	0x1007 to 0x1010	C4
InterSystemHandOver ToUMTS	INPN_InterSystemHandOver ToUMTS(n)	4113 to 4122	0x1011 to 0x101a	C4
InterSystemHandOver ToGSM	INPN_InterSystemHandOver ToGSM(n)	4123 to 4132	0x101b to 0x1024	C4
InterPLMNHandOver	INPN_InterPLMNHandOver(n)	4133 to 4142	0x1025 to 0x102e	C4
InterMSCHandOver	INPN_InterMSCHandOver(n)	4143 to 4152	0x102f to 0x1038	C4

INOP_EventReportBCSM				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
MetDPCriterionAlt				C4
Ellipsis	INPN_MetDPCriterion _Ellipsis(n)	4153 to 4162	0x1039 to 0x1042	A5
TchangeOfPosition				C2
LocationInformation				O3
See sub-table – LocationInformation (Section 1.2.1.2)				O4
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
MetDPCriteriaList – defined as above				O3
DpSpecificInfoAlt (default match)				C2
Ellipsis	INPN_EventSpecInfo_Ellipsis	113	0x71	A3
oServiceChangeSpecificInfo				O3
Ext_BasicServiceCode				O4
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode	120	0x78	C5
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode	121	0x79	C5
Ellipsis	INPN_oServiceChargeInfo _Ellipsis	4222	0x107e	A4
InitiatorOfServiceCharge	INPN_oInitiatorOfService Charge	4224	0x1080	O4
NatureOfServiceCharge	INPN_oNatureOfServiceCharge	4226	0x1082	O4
tServiceChangeSpecificInfo				O3
Ext_BasicServiceCode				O4
Ext_BearerServiceCode	INPN_Ext_BearerServiceCode _tServChng	4180	0x1054	C5
Ext_TeleserviceCode	INPN_Ext_TeleserviceCode _tServChng	4181	0x1055	C5
Ellipsis	INPN_tServiceChargeInfo _Ellipsis	4223	0x107f	A4
InitiatorOfServiceCharge	INPN_tInitiatorOfServiceCharge	4225	0x1081	O4
NatureOfServiceCharge	INPN_tNatureOfServiceCharge	4227	0x1083	O4
collectedInfoSpecificInfo				O3
CalledPartyNumber	INPN_CalledPartyNumber	5	0x05	O4
Ellipsis	INPN_CollectedInfo_Ellipsis	4221	0x107d	A4
LegID				O
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	O2
MiscCallInfo				O
MessageType	INPN_MessageType	56	0x38	O2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O

INOP_EventReportBCSM				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
Ellipsis	INPN_Ellipsis	112	0x70	A

[1]BCSM Event Codes are,

INEV_origAttemptAuthorized	1
INEV_collectedInfo	2
INEV_analyzedInformation	3
INEV_routeSelectFailure	4
INEV_oCalledPartyBusy	5
INEV_oNoAnswer	6
INEV_oAnswer	7
INEV_oMidCall	8
INEV_oDisconnect	9
INEV_oAbandon	10
INEV_termAttemptAuthorized	12
INEV_tCalledPartyBusy	13
INEV_tNoAnswer	14
INEV_tAnswer	15
INEV_tMidCall	16
INEV_tDisconnect	17
INEV_tAbandon	18
INEV_oTermSeized	19
INEV_oSuspended	20
INEV_tSuspended	21
INEV_origAttempt	22
INEV_oReAnswer	24
INEV_tReAnswer	25
INEV_facilityAcceptedAndAvailable	26
INEV_callAccepted	27
INEV_oChangeOfPosition	50
INEV_tChangeOfPosition	51
INEV_oServiceChange	52
INEV_tServiceChange	53

[2]The event specific information formatted or recovered is dependent on the value of INPN_EventTypeBCSM(0). For example if its value is Tdisconnect, then the format procedures will use the parameter INPN_ReleaseCause.

[3]For MetDPCriteriaList, each of the up to 10 instances may use any of the parameters listed after it.

1.2.11 CollectInformation

INOP_CollectInformation

Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.12 Continue

INOP_Continue				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.13 InitiateCallAttempt

INOP_InitiateCallAttempt				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
DestinationRoutingAddress				M
	INPN_DestinationRouting Address(0)	27	0x1b	M2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
LegToBeCreated				O
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C2
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C2
NewCallSegment	INPN_NewCallSegment(0)	1036	0x40c	O
CallingPartyNumber	INPN_CallingPartyNumber	6	0x06	O
CallReferenceNumber	INPN_CallReferenceNumber	131	0x83	O
GsmSCFAddress	INPN_GsmSCFAddress	4186	0x105a	O
Suppress-T-CSI	INPN_SuppressTCSI	4187	0x105b	O
Ellipsis	INPN_Ellisis	112	0x70	A

1.2.14 ResetTimer

INOP_ResetTimer				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
TimerID Default = tssf (0)	INPN_TimerID	61	0x3d	D
TimerValue	INPN_TimerValue	62	0x3e	M
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
CallSegmentID	INPN_CallSegmentID	320	0x140	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.15 FurnishChargingInformation

INOP_FurnishChargingInformation				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeId	INPN_InvokeId	1	0x01	M
FCIBCCCAMELsequence1				M
FreeFormatData	INPN_FreeFormData	319	0x13f	M2
PartyToCharge				O2
SendingSideID	INPN_SendingSideID(0)	224	0xe0	O3
AppendFreeFormatData Default = overwrite(0)	INPN_AppendFreeFormData	637	0x27d	D2

1.2.16 ApplyCharging

INOP_ApplyCharging				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
AChBillingChargingCharacteristics				M
TimeDurationCharging				M2
MaxCallPeriodDuration	INPN_MaxCallPeriodDuration	159	0x9f	M3
ReleaseIfDuration Exceeded Default = FALSE	INPN_ReleaseIfDurExceeded	750	0x2ee	D3
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O3
AudibleIndicator				O3
Tone	INPN_AudibleIndicTone	4214	0x1076	C4
BurstList				C4
WarningPeriod Default = 30	INPN_warningPeriod	4213	0x1075	D5
Burst				O5
NumberOfBursts Default = 1	INPN_numberOfBursts	4193	0x1061	D6
BurstInterval Default = 2	INPN_burstInterval	4194	0x1062	D6
NumberOfTonesInBurst Default = 3	INPN_numberOfTonesInBurst	4195	0x1063	D6
ToneDuration Default = 2	INPN_toneDuration	4196	0x1064	D6
ToneInterval Default = 2	INPN_toneInterval	4197	0x1065	D6
Ellipsis	INPN_BurstEllipsis	4211	0x1073	A6
Ellipsis	INPN_BurstListEllipsis	4212	0x1074	A5
Extensions2 (Section 10.11 Operation Extensions Operation Extensions)				O3
Ellipsis	INPN_TmDurChar_Ellipsis	1374	0x55e	A3
PartyToCharge				O
SendingSideID	INPN_SendingSideID(0)	224	0xe0	O2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
AChChargingAddress				O
LegID				C2
SendingSideID	INPN_SendingSideID(1)	225	0xe1	C3
ReceivingSideID	INPN_ReceivingSideID(1)	241	0xf1	C3
SrfConnection	INPN_SrfConnection	2786	0xae2	C2
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.17 ApplyChargingReport

INOP_ApplyChargingReport				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CallResult				M
TimeDurationChargingResult				M2
PartyToCharge				M3
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	M4
TimeInformation				M3
TimeIfNoTariffSwitch	INPN_TmIfNoTariffSwch	776	0x308	C4
TimeIfTariffSwitch				C4
TimeSinceTariffSwitch	INPN_TmSinceTariffSwch	777	0x309	M5
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O5
LegActive Default = TRUE	INPN_LegActive	4215	0x1077	D3
CallLegReleasedAtTcp Expiry	INPN_CallReleasedAtTcpExp	640	0x280	O3
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O3
AChChargingAddress				O3
LegID				C4
SendingSideID	INPN_SendingSideID(1)	225	0xe1	C5
ReceivingSideID	INPN_ReceivingSideID(1)	241	0xf1	C5
SrfConnection	INPN_SrfConnection	2786	0xae2	C4
Ellipsis	INPN_TmDurCharRes_Ellipsis	112	0x70	A3

1.2.18 CallGap

INOP_CallGap				
Parameter	Mnemonic	Value		
		dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
GapCriteria				M
BasicGapCriteria				C2
CalledAddressAndService				C3
CalledAddressValue	INPN_CalledAddressValue(0)	308	0x134	M4
ServiceKey	INPN_ServiceKey	3	0x03	M4
Ellipsis	INPN_CldAddrServ_Ellipsis	1398	0x576	A4
CallingAddressAndService				C3
CallingAddressValue	INPN_CallingAddressValue	99	0x63	M4
ServiceKey	INPN_ServiceKey	3	0x03	M4
Ellipsis	INPN_ClgAddrServ_Ellipsis	1400	0x578	A4
GapOnService				C3
ServiceKey	INPN_ServiceKey	3	0x03	M4
Ellipsis	INPN_GapOnServ_Ellipsis	1401	0x579	A4
CalledAddressValue	INPN_CalledAddressValue(0)	308	0x134	C3
CompoundGapCriteria				C2
CompoundBasicGapCriteria				M3
CompoundCalledAddressAndService				C4
CalledAddressValue	INPN_ComCalledAddressValue	894	0x37e	M5
ServiceKey	INPN_ComServiceKey	893	0x37d	M5
Ellipsis	INPN_CldAddrServ _Ellipsis	1398	0x576	A5
CompoundCallingAddressAndService				C4
CallingAddressValue	INPN_CallingAddressValue	99	0x63	M5
ServiceKey	INPN_ComServiceKey	893	0x37d	M5
Ellipsis	INPN_ClgAddrServ_Ellipsis	1400	0x578	A5
CompoundGapOnService				C4
ServiceKey	INPN_ComServiceKey	893	0x37d	M5
Ellipsis	INPN_GapOnServ_Ellipsis	1401	0x579	A5
CalledAddressValue	INPN_ComCalledAddressValue	894	0x37e	C4
ScfID	INPN_ScfID	38	0x26	O3
GapIndicators				M
GapDuration	INPN_Gap_Duration	72	0x48	M2

INOP_CallGap				
Parameter	Mnemonic	Value		
		dec)	(hex)	
GapInterval	INPN_GapInterval	73	0x49	M2
Ellipsis	INPN_GapInd_Ellipsis	1411	0x583	A2
ControlType	INPN_ControlType	101	0x65	O
GapTreatment				O
InformationToSend				C2
See sub-table – InformationToSend (Section 1.2.18.1)				O3
ReleaseCause	INPN_ReleaseCause	96	0x60	C2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.18.1 InformationToSend (Sub-table)

InformationToSend				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InbandInfo				C
MessageID				O2
ElementaryMessageID	INPN_ElementaryMessageID	628	0x274	C3
Text				C3
MessageContent	INPN_MessageContent	65	0x41	M4
Attributes	INPN_Attributes	66	0x42	O4
ElementaryMessageIDs	INPN_Elementary MessageIDs(n)	256 to 271	0x100 to 0x11f	C3
VariableMessage				C3
ElementaryMessageID	INPN_Variable_MessageID	629	0x275	M4
VariableParts				M4
Integer	INPN_Integer(n)	528 to 532	0x210 to 0x214	C5
Number	INPN_Number(n)	533 to 537	0x215 to 0x210	C5
Time	INPN_Time(n)	538 to 541	0x21a to 0x21e	C5
Date	INPN_Date(n)	542 to 547	0x21f to 0x223	C5
Price	INPN_Price(n)	548 to 552	0x224 to 0x229	C5
NumberOfRepetitions	INPN_NumberOfRepetitions	88	0x58	O2
Duration	INPN_Duration	89	0x59	O2
Interval	INPN_Interval	90	0x5a	O2
Ellipsis	INPN_InbandInfo_Ellipsis	1383	0x567	A2
Tone				C
ToneID	INPN_ToneID	64	0x40	M2
Duration	INPN_Duration	89	0x59	O2
Ellipsis	INPN_Tone_Ellipsis	1375	0x55f	A2

1.2.19 CallInformationReport

INOP_CallInformationReport				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
RequestedInformationList (SEQUENCE, size = 1 to 4)				M
RequestedInformation Type	INPN_RequestedInformation Type(n)	288 to 291	0x120 to 0x123	M2
RequestedInformationValue				M2
CallAttemptEllapsed TimeValue	INPN_CallAttemptEllapsedTime Value(n)	293 to 296	0x125 to 0x128	C3
CallStopTimeValue	INPN_CallStopTimeValue(n)	298 to 301	0x12a to 0x12d	C3
CallConnectedElapsed TimeValue	INPN_CallConnectedElapsed TimeValue(n)	303 to 306	0x12f to 0x132	C3
ReleaseCauseValue	INPN_ReleaseCauseValue(n)	313 to 316	0x139 to 0x13c	C3
Ellipsis	INPN_ReqInfo_Ellipsis(n)	1376 to 1379	0x560 to 0x563	A2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
LegID				O
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	O2
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.20 CallInformationRequest

INOP_CallInformationReport				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
RequestedInformationReport (SEQUENCE, size = 1 to 4)				M
RequestedInformation Type	INPN_RequestedInformation Type(n)	288 to 291	0x120 to 0x123	M2
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
LegID				O
SendingSideID	INPN_SendingSideID(0)	224	0xe0	O2
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.21 SendChargingInformation

INOP_SendChargingInformation				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CAMEL-SCIBillingChargingCharacteristics				M
AOCBeforeAnswer[1]				C2
AOCInitial				M3
E1	INPN_Initial_CAI_E1	144	0x90	O4
E2	INPN_Initial_CAI_E2	145	0x91	O4
E3	INPN_Initial_CAI_E3	146	0x92	O4
E4	INPN_Initial_CAI_E4	147	0x93	O4
E5	INPN_Initial_CAI_E5	148	0x94	O4
E6	INPN_Initial_CAI_E6	149	0x95	O4
E7	INPN_Initial_CAI_E7	150	0x96	O4
AOCSubsequent				O3
CAI-GSM0224				M4
E1	INPN_Subsequent_CAI_E1	151	0x97	O5
E2	INPN_Subsequent_CAI_E2	152	0x98	O5
E3	INPN_Subsequent_CAI_E3	153	0x99	O5
E4	INPN_Subsequent_CAI_E4	154	0x9a	O5

INOP_SendChargingInformation				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
E5	INPN_Subsequent_CAI_E5	155	0x9b	O5
E6	INPN_Subsequent_CAI_E6	156	0x9c	O5
E7	INPN_Subsequent_CAI_E7	157	0x9d	O5
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O4
AOCAfterAnswer[1]				C2
AOCSubsequent				O3
CAI-GSM0224				M4
E1	INPN_Subsequent_CAI_E1	151	0x97	O5
E2	INPN_Subsequent_CAI_E2	152	0x98	O5
E3	INPN_Subsequent_CAI_E3	153	0x99	O5
E4	INPN_Subsequent_CAI_E4	154	0x9a	O5
E5	INPN_Subsequent_CAI_E5	155	0x9b	O5
E6	INPN_Subsequent_CAI_E6	156	0x9c	O5
E7	INPN_Subsequent_CAI_E7	157	0x9d	O5
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O4
AOC-Extension (CAMEL-SCIBillingChargingCharacteristicsAlt)[1]				C2
Ellipsis	INPN_SCIBCCAlt_Ellipsis	4218	0x107a	A3
PartyToCharge				M
SendingSideID	INPN_SendingSideID(0)	224	0xe0	M
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

[1] The parameters INPN_CAMEL_AOC_BeforeAnswer and INPN_CAMEL_AOC_AfterAnswer are used to determine if the AOC is for before or after answer. If present AOCBeforeAnswer or AOCAfterAnswer will be sent, otherwise the AOC-Extension will be sent. The parameters are not formatted or decoded and may be of any value.

1.2.22 PlayAnnouncement

INOP_PlayAnnouncement				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
InformationToSend				M
See subtable – InformationToSend (Section 1.2.18.1)				M2
DisconnectFromIP Forbidden Default = TRUE	INPN_DisconnectFromIP Forbidden	59	0x3b	D
RequestAnnouncement CompleteNotification Default = TRUE	INPN_RequestAnnouncement Complete	60	0x3c	D
Extensions (Section 10.11 Operation Extensions Operation Extensions)				O
CallSegmentID	INPN_CallSegmentID	320	0x140	O
RequestAnnouncement StartedNotification Default - FALSE	INPN_RequestAnnouncement Started	4189	0x105d	D
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.23 PromptAndCollectUserInformation

INOP_ PromptAndCollectUserInformation				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CollectedInfo				M
CollectedDigits				M2
MinimumNbOfDigits Default = 1	INPN_MinimumNumberOfDigits	74	0x4a	D3
MaximumNbOf Digits	INPN_MaximumNumberOfDigit s	75	0x4b	M3
EndOfReplyDigit	INPN_EndOfReplyDigit	76	0x4c	O3
CancelDigit	INPN_CancelDigit	77	0x4d	O3
StartDigit	INPN_StartDigit	78	0x4e	O3
FirstDigitTimeOut	INPN_FirstDigitTimeOut	79	0x4f	O3
InterDigitTimeOut	INPN_InterDigitTimeOut	80	0x50	O3
ErrorTreatment Default: = StfErrorAndInfo	INPN_Errortreatment	81	0x51	D3
InterruptableAndInd Default = TRUE	INPN_InterruptableAnnInd	82	0x52	D3
VoiceInformation Default = FALSE	INPN_VoiceInformation	83	0x53	D3
VoiceBack Default = FALSE	INPN_VoiceBack	84	0x54	D3
DisconnectFromIP Forbidden Default = TRUE	INPN_DisconnectFromIP Forbidden	59	0x3b	D
InformationToSend				O
See subtable – InformationToSend (Section 1.2.18.1)				O2
Extensions (Section 10.11 Operation Extensions)				O
CallSegmentID	INPN_CallSegmentID	320	0x140	O
RequestAnnouncement StartedNotification Default - FALSE	INPN_RequestAnnouncement Started	4189	0x105d	D
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.24 SpecializedResourceReport

INOP_ SpecializedResourceReport				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
LinkedID	INPN_LinkedID	2	0x02	O
AllAnnouncements Complete	INPN_AllAnnouncements Complete	4190	0x105e	C
FirstAnnouncement Started	INPN_FirstAnnouncement Started	4191	0x105f	C

1.2.25 Cancel

INOP_Cancel				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
Cancel_InvokeID	INPN_Cancel_InvokeID	86	0x56	C
AllRequests	INPN_CancelAllRequests	4219	0x107b	C
CallSegmentToCancel				C
Cancel_InvokeID	INPN_Cancel_InvokeID	86	0x56	O2
CallSegmentID	INPN_CallSegmentID	320	0x140	O2
Ellipsis	INPN_CallSegToCancelEllipsis	4210	0x1072	A2

1.2.26 ActivityTest

INOP_ ActivityTest				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.27 ContinueWithArg

INOP_ ContinueWithArgument				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
AlertingPattern	INPN_AlertingPattern	30	0x1e	O
Extensions (Section 10.11 Operation Extensions)				O
ServiceInteractionIndicatorsTwo				O
See sub-table – ServiceInteractionIndicatorsTwo (Section 1.2.1.1)				O2
CallingPartysCategory	INPN_CallingPartysCategory	8	0x08	O
GenericNumbers (SET, size = 1 to 5)				O
GenericNumber	INPN_GenericNumber(n)	67 to 71	0x43 to 0x47	O2
CUG_Interlock	INPN_CUG_Interlock	645	0x285	O
CUG_OutgoingAccess	INPN_CUG_OutgoingAccess	646	0x286	O
ChargeNumber	INPN_ChargeNumber	642	0x282	O
Carrier	INPN_Carrier	40	0x28	O
SuppressionOf Announcement	INPN_SuppressionOf Announcement	109	0x6d	O
NAOliInfo	INPN_NAOliInfo	141	0x8d	O
BorInterrogation Requested	INPN_BorInterrogation Requested	2787	0xae3	O
Suppress-O-CSI	INPN_SuppressOCSI	4200	0x1068	O
ContinueWithArgumentArgExtension				O
Suppress-D-CSI	INPN_SuppressDCSI	4198	0x1066	O2
Suppress-N-CSI	INPN_SuppressNCSI	2788	0xae4	O2
SuppressOutgoingCall Barring	INPN_SuppressOutgoing CallBarring	4199	0x1067	O2
LegOrCallSegment				O2
CallSegmentID	INPN_CallSegmentID	320	0x140	C3
LegId				C3
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C4
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C4
Ellipsis	INPN_ContinueWithArgument ExtensionEllipsis	4209	0x1071	A2
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.28 DisconnectLeg

INOP_DisconnectLeg				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
LegToBeReleased				M
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C2
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C2
ReleaseCause	INPN_ReleaseCause	96	0x60	O
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.29 MoveLeg

INOP_MoveLeg				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
LegIDToMove				M
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C2
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C2
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.30 SplitLeg

INOP_SplitLeg				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
LegToBeSplit				M
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C2
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C2
NewCallSegment	INPN_NewCallSegment(0)	1036	0x40c	O
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.31 EntityReleased

INOP_EntityReleased				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CallSegmentFailure				C
CallSegmentID	INPN_CallSegmentID	320	0x140	O2
Cause	INPN_Cause	41	0x29	O2
Ellipsis	INPN_CallSegmentFailure _Ellipsis	4192	0x1060	A2
BCSMFailure				C
LegId				O2
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C3
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C3
Cause	INPN_BCSMCause	4208	0x1070	O2
Ellipsis	INPN_BCSMFailure_Ellipsis	946	0x3b2	A2

1.2.32 PlayTone

INOP_PlayTone				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
LegOrCallSegment				M
CallSegmentID	INPN_CallSegmentID	320	0x140	C2
LegId				C2
SendingSideID	INPN_SendingSideID(0)	224	0xe0	C3
ReceivingSideID	INPN_ReceivingSideID(0)	240	0xf0	C3
Burst				M
NumberOfBursts Default = 1	INPN_numberOfBursts	4193	0x1061	D2
BurstInterval Default = 2	INPN_burstInterval	4194	0x1062	D2
NumberOfTonesInBurst Default = 3	INPN_numberOfTonesInBurst	4195	0x1063	D2
ToneDuration Default = 2	INPN_toneDuration	4196	0x1064	D2
ToneInterval Default = 2	INPN_toneInterval	4197	0x1065	D2
Ellipsis	INPN_BurstEllipsis	4211	0x1073	A2
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellisis	112	0x70	A

1.2.33 InitialDPSMS

INOP_InitialDPSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
Servicekey	INPN_ServiceKey	3	0x03	O
DestinationSubscriber Number	INPN_DestSubscriberNumber	649	0x289	O
CallingPartyNumber	INPN_CallingPartyNumberSMS	4188	0x105c	O
EventTypeSMS	INPN_EventTypeSMS(0)	861	0x35d	O
IMSI	INPN_IMSI	130	0x82	O
LocationInformationMSC				O
See sub-table – LocationInformation (Section 1.2.1.2)				O2
LocationInformationGPRS				O
See sub-table – LocationInformationGPRS (Section 1.2.33.1)				O2
SMSCAddress	INPN_SMSCAddress	768	0x300	O
TimeAndTimeZone	INPN_TimeAndTimezone	703	0x2bf	O
TPShortMessage SpecificInfo	INPN_TPShtMsgSubInfo	781	0x30d	O
TPProtocolIdentifier	INPN_TPProtocolID	780	0x30c	O
TPDataCodingScheme	INPN_TPDataCodingScheme	779	0x30b	O
TPValidityPeriod	INPN_TPValidityPeriod	782	0x30e	O
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A
SMSReferenceNumber	INPN_SMSReferenceNumber	770	0x302	O
MSCAddress	INPN_MSCAddress	132	0x84	O
SGSN Number	INPN_SGSNNumber	767	0x2ff	O
MS-ClassMark2	INPN_MSClassMark2	2777	0xad9	O
GPRSMSClass				O
MSNetworkCapability	INPN_MSNetworkCapability	661	0x295	O2
MSRadioAccess Capability	INPN_MSRadioAccess Capability	662	0x296	O2
IMEI	INPN_IMEI	2778	0xada	O
CalledPartyNumber	INPN_CalledPartyNumber	5	0x05	O

1.2.33.1 LocationInformationGPRS (sub-table)

LocationInformationGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
CellGlobalIdOrServiceAreaIdOrLAI	INPN_CGlobal_Sarea_LAI	641	0x281	O
RoutingAreaIdentity	INPN_GPRSRoutingAreaID	897	0x381	O
GeographicalInformation	INPN_GPRSGeographical Information	895	0x37f	O
SGSN Number	INPN_LocationInfoGPRS _SGSNNumber	4231	0x1087	O
SelectedLSAIdentity	INPN_LocationInfoGPRS _SelLSAIdentity	4281	0x10b9	O
ExtensionContainer	INPN_GPRSExtension Container	896	0x380	O
Ellipsis	INPN_LocationInfoGPRS _Ellipsis	1369	0x559	A
SAI-Present	INPN_LocationInfoGPRS _SAIPresent	4232	0x1088	O

1.2.34 FurnishChargingInformationSMS

INOP_FurnishChargingInformationSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
FCIBCCCAMELsequence1				M
FreeFormatData	INPN_FreeFormData	319	0x13f	M2
AppendFreeFormatData Default = overwrite (0)	INPN_AppendFreeFormData	637	0x27d	D2

1.2.35 Connect SMS

INOP_ConnectSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CallingPartysNumber	INPN_CallingPartyNumberSMS	4188	0x105c	O
DestinationSubscriber Number	INPN_DestSubscriberNumber	649	0x289	O
SMSCAddress	INPN_SMSCAddress	768	0x300	O
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.36 RequestReportSMSEvent

INOP_RequestReportSMSEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
SMSEvents (SEQUENCE, size = 1 to 10)				M
EventTypeSMS	INPN_EventTypeSMS(n)	861 to 870	0x35d to 0x366	M2
MonitorMode	INPN_MonitorMode(n)	208 to 217	0xd0 to 0xd9	M2
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.37 EventReportSMS

INOP_EventReportSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
EventTypeSMS	INPN_EventTypeSMS(0)[1]	861	0x35d	M
EventSpecificInformationSMS				O
O-SMSFailureSpecificInfo[2]				C2
FailureCause	INPN_SMSCause	769	0x301	M3
Ellipsis	INPN_EventSpecInfoSMS _Ellipsis	1371	0x55b	A3
O-SMSSubmittedSpecificInfo				C2
--No Info--				
Ellipsis	INPN_EventSpecInfoSMS _Ellipsis	1371	0x55b	A3
T-SMSFailureSpecificInfo				C2
FailureCause	INPN_MT_SMSCause	2772	0xad4	M3
Ellipsis	INPN_EventSpecInfoSMS _Ellipsis	1371	0x55b	A3
T-SMSDeliverySpecificInfo				C2
--No Info--				
Ellipsis	INPN_EventSpecInfoSMS _Ellipsis	1371	0x55b	A3
MiscCallInfo				O
MessageType Default = request	INPN_MessageType	56	0x38	D2
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

[1]The SMS Event Codes are,

INEVS_SMSCollectedInfo	1
INEVS_oSMSFailure	2
INEVS_oSMSSubmitted	3
INEVS_SMSDeliveryRequested	11
INEVS_tSMSFailure	12
INEVS_tSMSDelivery	13

[2]The event specific information formatted or recovered is dependent on the value of INPN_EventTypeSMS(0).

1.2.38 ContinueSMS

INOP_ContinueSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.39 ReleaseSMS

INOP_ReleaseSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
RPCause	INPN_RPCause	762	0x2fa	M

1.2.40 ResetTimerSMS

INOP_ResetTimerSMS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
TimerID Default = tssf (0)	INPN_TimerID	61	0x3d	D
TimerValue	INPN_TimerValue	62	0x3e	M
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.41 ActivityTestGPRS

INOP_ActivityTestGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M

1.2.42 ApplyChargingGPRS

INOP_ApplyChargingGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
ChargingCharacteristics				M
MaxTransferredVolume	INPN_MaxTransferredVol	659	0x293	C2
MaxElapsedTime	INPN_MaxElapsedTime	658	0x292	C2
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.43 ApplyChargingReportGPRS

INOP_ApplyChargingReportGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
ChargingResult				M
TransferredVolume				C2
VolumeIfNoTariffSwitch	INPN_VolIfNoTariffSwch	785	0x311	C3
VolumeIfTariffSwitch				C3
VolumeSinceLastTariff Switch	INPN_VolLastTariffSwch	783	0x30f	M4
VolumeTariffSwitch Interval	INPN_VolTariffSwchInt	784	0x310	O4
ElapsedTime				C2
TimeGPRSIfNoTariff Switch	INPN_TmGPRSIfNoTariffSwch	776	0x308	C3
TimeGPRSIfTariffSwitch				C3
TimeGPRSSinceLast TariffSwitch	INPN_TmGPRSSinceLast TariffSwch	774	0x306	M4
TimeGPRSTariffSwitch Interval	INPN_TmGPRSTariffSwchInt	775	0x307	O4
QualityOfService				O
See sub-table – QualityOfService (Section 1.2.43.1)				O2
Active Default = TRUE	INPN_Active	636	0x27c	D
PDPID	INPN_PDPID	665	0x299	O

INOP_ApplyChargingReportGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
Ellipsis	INPN_Ellipsis	112	0x70	A
ChargingRollOver				O
TransferredVolumeRollOver				C2
Ro-VolumeIfNoTariff Switch	INPN_RO_VolIfNoTariffSwch	761	0x2f9	C3
Ro-VolumeIfTariffSwitch				C3
Ro-VolumeSinceLast TariffSwitch	INPN_RO_VolLastTariffSwch	759	0x2f7	M4
Ro-VolumeTariffSwitch Interval	INPN_RO_VolTariffSwchInt	760	0x2f8	O4
ElapsedTimeRollOver				C2
Ro-TimeGPRSIfNoTariff Switch	INPN_RO_TmGPRSNoTariff Swch	756	0x2f4	C3
Ro-TimeGPRSIfTariffSwitch				C3
Ro-TimeGPRSSinceLast TariffSwitch	INPN_RO_TmGPRSLastTariff Swch	757	0x2f5	O4
Ro-TimeGPRSTariff SwitchInterval	INPN_RO_TmGPRSTariff SwchInt	758	0x2f6	O4

1.2.43.1 QualityOfService (sub-table)

QualityOfService				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
Requested-QoS				O
Short-QoS-Format	INPN_ReqShtQoSFormat	751	0x2ef	C2
Long-QoS-Format	INPN_ReqLngQoSFormat	752	0x2f0	C2
Subscribed-QoS				O
Short-QoS-Format	INPN_SubShtQoSFormat	771	0x303	C2
Long-QoS-Format	INPN_SubLngQoSFormat	772	0x304	C2
Negotiated-QoS				O
Short-QoS-Format	INPN_NegShtQoSFormat	746	0x2ea	C2
Long-QoS-Format	INPN_NegLngQoSFormat	747	0x2eb	C2
Ellipsis	INPN_QoS_Ellipsis	1370	0x55a	A
Requested-QoS-Extension				O
SupplementToLongQoS Format	INPN_ReqSupToLongQoS Format	4202	0x106a	O2
Ellipsis	INPN_ReqGPRSQoSExt _Ellipsis	4203	0x106b	A2
Subscribed-QoS-Extension				O
SupplementToLongQoS Format	INPN_SubSupToLongQoS Format	4204	0x106c	O2
Ellipsis	INPN_SubGPRSQoSExt _Ellipsis	4205	0x106d	A2
Negotiated-QoS-Extension				O
SupplementToLongQoS Format	INPN_NegSupToLongQoS Format	4206	0x106e	O2
Ellipsis	INPN_NegGPRSQoSExt _Ellipsis	4207	0x106f	A2

1.2.44 CancelGPRS

INOP_CancelGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.45 ConnectGPRS

INOP_ConnectGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
AccessPointName	INPN_AccessPtName	592	0x250	M
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.46 ContinueGPRS

INOP_ContinueGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.47 EntityReleasedGPRS

INOP_EntityReleasedGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
GPRSCause	INPN_GPRSCause	654	0x28e	M
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.48 FurnishChargingInformationGPRS

INOP_FurnishChargingInformationGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
FCIBCCCAMELsequence1				M
FreeFormatData	INPN_FreeFormData	319	0x13f	M2
PDPID	INPN_PDPID	665	0x299	O2
AppendFreeFormatData Default = overwrite (0)	INPN_AppendFreeFormData	637	0x27d	D2
Ellipsis	INPN_FCIGPRSseq_Ellipsis	1367	0x557	A2

1.2.49 InitialDPGPRS

INOP_InitialDPGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
Servicekey	INPN_Servicekey	3	0x03	M
GPRSEventType	INPN_GPRSEventType(0)	877	0x36d	M
MSISDN	INPN_MSISDN	660	0x294	M
IMSI	INPN_IMSI	130	0x82	M
TimeAndTimeZone	INPN_TimeAndTimezone	703	0x2bf	M
GPRSMSClass				O
MSNetworkCapability	INPN_MSNetworkCapability	661	0x295	M2
MSRadioAccess Capability	INPN_MSRadioAccess Capability	662	0x296	O2
EndUserAddress				O
PDPTypeOrganization	INPN_PDPTypeOrganization	749	0x2ed	M2
PDPTypeNumber	INPN_PDPTypeNumber	748	0x2ec	M2
PDPAddress	INPN_PDPAddress	666	0x29a	O2
QualityOfService				O
See sub-table – QualityOfService (Section 1.2.43.1)				O2
AccessPointName	INPN_AccessPtName	592	0x250	O
RoutingAreaIdentity	INPN_RoutingAreaID	754	0x2f2	O
ChargingID	INPN_ChargingID	643	0x283	O
SGSNCapabilities	INPN_SGSNCapabilities	766	0x2fe	O
LocationInformationGPRS				O
See sub-table – LocationInformationGPRS (Section 1.2.33.1)				O2
PDPInitiationType	INPN_PDPInitiationType	667	0x29b	O
Extensions (Section 10.11 Operation Extensions)				O
Ellipsis	INPN_Ellipsis	112	0x70	A
GGSNAddress	INPN_GGSNAddress	652	0x28c	O
SecondaryPDP-Context	INPN_SecondaryPDPContext	764	0x2fc	O
IMEI	INPN_IMEI	2778	0xada	O

1.2.50 ReleaseGPRS

INOP_ReleaseGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
GPRSCause	INPN_GPRSCause	654	0x28e	M
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.51 EventReportGPRS

INOP_EventReportGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
GPRSEventType	INPN_GPRSEventType(0)[1]	877	0x36d	M
MiscCallInfo				O
MessageType Default = request(0)	INPN_MessageType	56	0x38	D2
GPRSEventSpecificInformation				O
AttachChangeOfPositionSpecificInformation[2]				C2
LocationInformationGPRS				O3
See sub-table – LocationInformationGPRS (Section 1.2.33.1)				O4
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
PDP-ContextChangeOfPositionSpecificInformation				C2
AccessPointName	INPN_AccessPtName	592	0x250	O3
GPRSChargingID	INPN_GPRSChargingID	655	0x28f	O3
LocationInformationGPRS				O3
See sub-table –LocationInformationGPRS (Section 1.2.33.1)				O4
EndUserAddress				O3
PDPTypeOrganisation	INPN_PDPTypeOrganisation	749	0x2ed	M4
PDPTypeNumber	INPN_PDPTypeNumber	748	0x2ec	M4
PDPAddress	INPN_PDPAddress	666	0x29a	O4
QualityOfService				O3
See sub-table – QualityOfService (Section 1.2.43.1)				O4

INOP_EventReportGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
TimeAndTimeZone	INPN_TimeAndTimezone	703	0x2bf	O3
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
GGSNAddress	INPN_GGSNAddress	652	0x28c	O3
DetachSpecificInformation				C2
InitiatingEntity	INPN_InitiatingEntity	942	0x3ae	O3
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
RoutingAreaUpdate	INPN_RoutingAreaUpdate	755	0x2f3	O3
DisconnectSpecificInformation				C2
InitiatingEntity	INPN_InitiatingEntity	942	0x3ae	O3
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
RoutingAreaUpdate	INPN_RoutingAreaUpdate	755	0x2f3	O3
PDPContextEstablishmentSpecificInformation				C2
AccessPointName	INPN_AccessPtName	592	0x250	O3
EndUserAddress				O3
PDPTypeOrganisation	INPN_PDPTypeOrganisation	749	0x2ed	M4
PDPTypeNumber	INPN_PDPTypeNumber	748	0x2ec	M4
PDPAddress	INPN_PDPAddress	666	0x29a	O4
QualityOfService				O3
See sub-table – QualityOfService (Section 1.2.43.1)				O4
LocationInformationGPRS				O3
See sub-table – LocationInformationGPRS (Section 1.2.33.1)				O4
TimeAndTimeZone	INPN_TimeAndTimezone	703	0x2bf	O3
PDPInitiationType	INPN_PDPInitiationType	667	0x29b	O3
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
SecondaryPDP-Context	INPN_SecondaryPDPContext	764	0x2fc	O3
PDPContextEstablishmentAcknowledgementSpecificInformation				C2
AccessPointName	INPN_AccessPtName	592	0x250	O3
GPRSChargingID	INPN_GPRSChargingID	655	0x28f	O3
EndUserAddress				O3
PDPTypeOrganisation	INPN_PDPTypeOrganisation	749	0x2ed	M4
PDPTypeNumber	INPN_PDPTypeNumber	748	0x2ec	M4
PDPAddress	INPN_PDPAddress	666	0x29a	O4

INOP_EventReportGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
QualityOfService				O3
See sub-table – QualityOfService (Section 1.2.43.1)				O4
LocationInformationGPRS				O3
See sub-table – LocationInformationGPRS (Section 1.2.33.1)				O4
TimeAndTimeZone	INPN_TimeAndTimezone	703	0x2bf	O3
Ellipsis	INPN_EventSpecInfoGPRS _Ellipsis	1372	0x55c	A3
GGSNAddress	INPN_GGSNAddress	652	0x28c	O3
PDPID	INPN_PDPID	655	0x28f	O
Ellipsis	INPN_Ellipsis	112	0x70	A

[1]The GPRS Event Codes are,

INEVG_Attach	1
INEVG_AttachChangeOfPosition	2
INEVG_Detached	3
INEVG_PDPContextEstablishment	11
INEVG_PDPContextEstablishmentAck	12
INEVG_Disconnect	13
INEVG_PDPContextChangeOfPosition	14

[2]The event specific information formatted or recovered is dependent on the value of INPN_GPRSEventType(0).

1.2.52 RequestReportGPRSEvent

INOP_RequestReportGPRSEvent				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
GPRSEvent (SEQUENCE OF, size = 1 to 10)				M
GPRSEventType	INPN_GPRSEventType(n)	877 to 886	0x36d to 0x376	M2
MonitorMode	INPN_MonitorMode(n)	208 to 217	0xd0 to 0xd9	M2
PDPID	INPN_PDPID	665	0x299	O
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.53 ResetTimerGPRS

INOP_ResetTimerGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
TimerID Default = tssf (0)	INPN_TimerID	61	0x3d	D
TimerValue	INPN_TimerValue	62	0x3e	M
Ellipsis	INPN_Ellipsis	112	0x70	A

1.2.54 SendChargingInformationGPRS

INOP_SendChargingInformationGPRS				
Parameter	Mnemonic	Value		
		(dec)	(hex)	
InvokeID	INPN_InvokeID	1	0x01	M
CAMEL-SCIGPRSBillingChargingCharacteristics				M
AOCGPRS				M2
AOCInitial				M3
E1	INPN_Initial_CAI_E1	144	0x90	O4
E2	INPN_Initial_CAI_E2	145	0x91	O4
E3	INPN_Initial_CAI_E3	146	0x92	O4
E4	INPN_Initial_CAI_E4	147	0x93	O4
E5	INPN_Initial_CAI_E5	148	0x94	O4
E6	INPN_Initial_CAI_E6	149	0x95	O4
E7	INPN_Initial_CAI_E7	150	0x96	O4
AOCSubsequent				O3
CAI-GSM0224				M4
E1	INPN_Subsequent_CAI_E1	151	0x97	O5
E2	INPN_Subsequent_CAI_E2	152	0x98	O5
E3	INPN_Subsequent_CAI_E3	153	0x99	O5
E4	INPN_Subsequent_CAI_E4	154	0x9a	O5
E5	INPN_Subsequent_CAI_E5	155	0x9b	O5
E6	INPN_Subsequent_CAI_E6	156	0x9c	O5
E7	INPN_Subsequent_CAI_E7	157	0x9d	O5
TariffSwitchInterval	INPN_TariffSwitchInterval	158	0x9e	O4
PDPID	INPN_PDPID	665	0x299	O2
Ellipsis	INPN_Ellipsis	112	0x70	A2