3GPP TS 32.172 V11.0.0 (2012-09)

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Telecommunication management;
Subscription Management (SuM)
Network Resource Model (NRM) Integration Reference Point
(IRP): Information Service (IS)
(Release 11)**

Keywords
UMTS, management

Copyright Notification

Contents

Foreword

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z   the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The interface Itf-N, defined in 3GPP TS 32.102 [2], is built up by a number of Integration Reference Points (IRPs) and a related Name Convention, which realise the functional capabilities over this interface. The basic structure of the IRPs is defined in 3GPP TS 32.101 [1] and 3GPP TS 32.102 [2].

The present document is part of a TS-family covering the 3rd Generation Partnership Project: Technical Specification Group Services and System Aspects; Telecommunication management, as identified below:

TS 32.140:   "Subscription Management (SuM) requirements".

TS 32.141:   "Subscription Management (SuM) architecture".

TS 32.171:   "Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): Requirements ".

TS 32.172:   "Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)".

TS 32.176:   "Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Sets (SS) definitions".

1 Scope

The present document defines the Network Resources Model (NRM) for the SuM IRP.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[2]   3GPP TS 32.102: "Telecommunication management; Architecture".

[3]   3GPP TS 32.140: "Telecommunication management; Subscription Management (SuM) Requirements".

[4]   3GPP TS 32.141: "Telecommunication management; Subscription Management (SuM) Architecture."

[5]   3GPP TS 32.171: "Telecommunication management; Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): Requirements ".

[6]   3GPP TS 32.622: "Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)".

[7]   3GPP TS 23.008: "Organization of subscriber data".

[8]   3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx interfaces; Signalling flows and message contents".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply. For terms and definitions not found here, please refer to 3GPP TS 32.101 [1], 3GPP TS 32.102 [2], 3GPP TS 32.140 [3] and TS 32.141 [4].

Subscription Profile: see 3GPP TS 32.140 [3].

Subscription Profile Component: see 3GPP TS 32.140 [3].

Subscription Profile Component Definition: specifies a Subscription Profile Component.

Subscriber Profile: see 3GPP TS 32.140 [3].

User: see 3GPP TS 32.140 [3].

3.2   Abbreviations

For the purposes of the present document the following and the abbreviations in 32.101 [1], 32.102 [2], 32.140 [3] and 32.141 [4] apply.

EM	Element Manager
IOC	Information Object Class
IRP	Integration Reference Point
MOC	Managed Object Class
NE	Network Element
SuM	Subscription Management

4   Compliance rules

The following defines the meaning of Mandatory and Optional IOC attributes and associations between IOCs, in Solution Sets to the IRP defined by the present document.

Solution Sets to the SuM IRP:

- The IRPManager shall support all Mandatory attributes/associations. The IRPManager shall be prepared to receive information related to Mandatory as well as Optional attributes/associations without failure; however the IRPManager does not have to support handling of the Optional attributes/associations.

- The IRPAgent shall support all Mandatory attributes/associations. It may support Optional attributes/associations.

An IRPAgent that incorporates vendor-specific extensions shall support normal communication with a 3GPP SA5-compliant IRPManager with respect to all Mandatory and Optional Managed Object Classes (MOCs), attributes, associations, operations, parameters and notifications without requiring the IRPManager to have any knowledge of the extensions.

5   Modelling approach

The modelling approach adopted and used in this IRP is described in 3GPP TS 32.622 [6].

6 Information Object Classes

6.1 Imported information entities and local labels

Label reference	Local label
32.622 [6], information object class, `ManagedFunction`	`ManagedFunction`
32.622 [6], information object class, `SubNetwork`	`SubNetwork`
32.622 [6], information object class, `Top`	`Top`

6.2 Class diagram

6.2.1 Attributes and relationships

This clause depicts the set of IOCs that encapsulate information relevant for this service. This sub-clause provides the overview of all information object classes in UML. Subsequent clauses provide more detailed specification of various aspects of these Information Object Classes (IOCs).
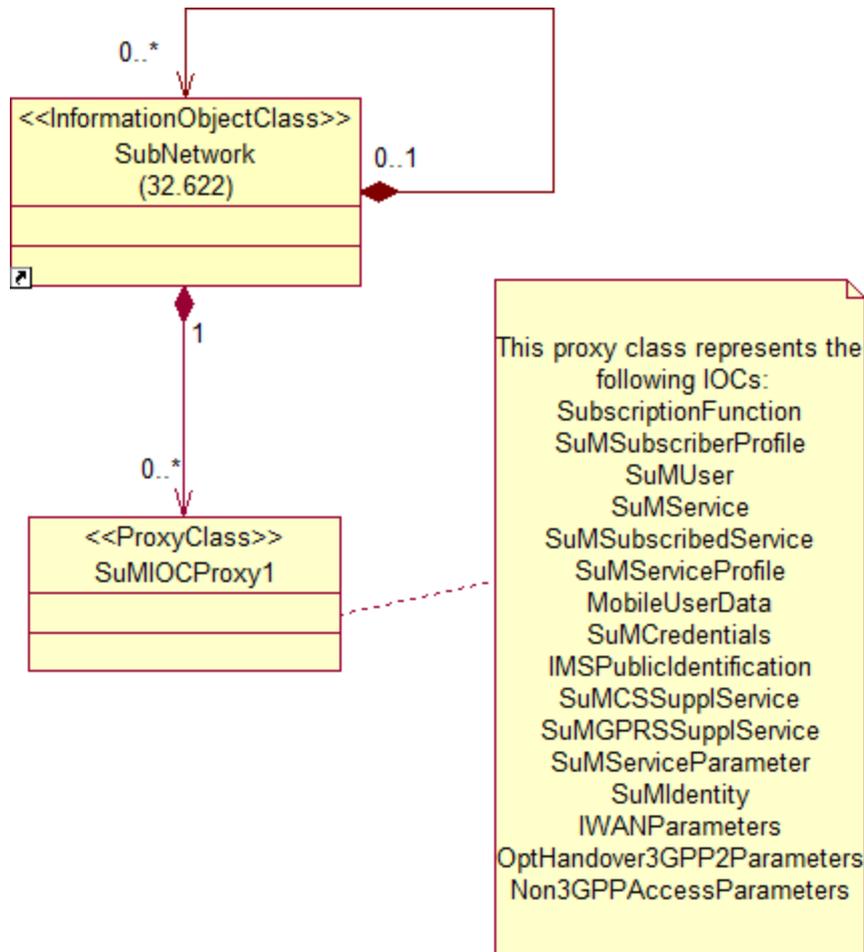
Figure 1a: SuM NRM naming diagram 1
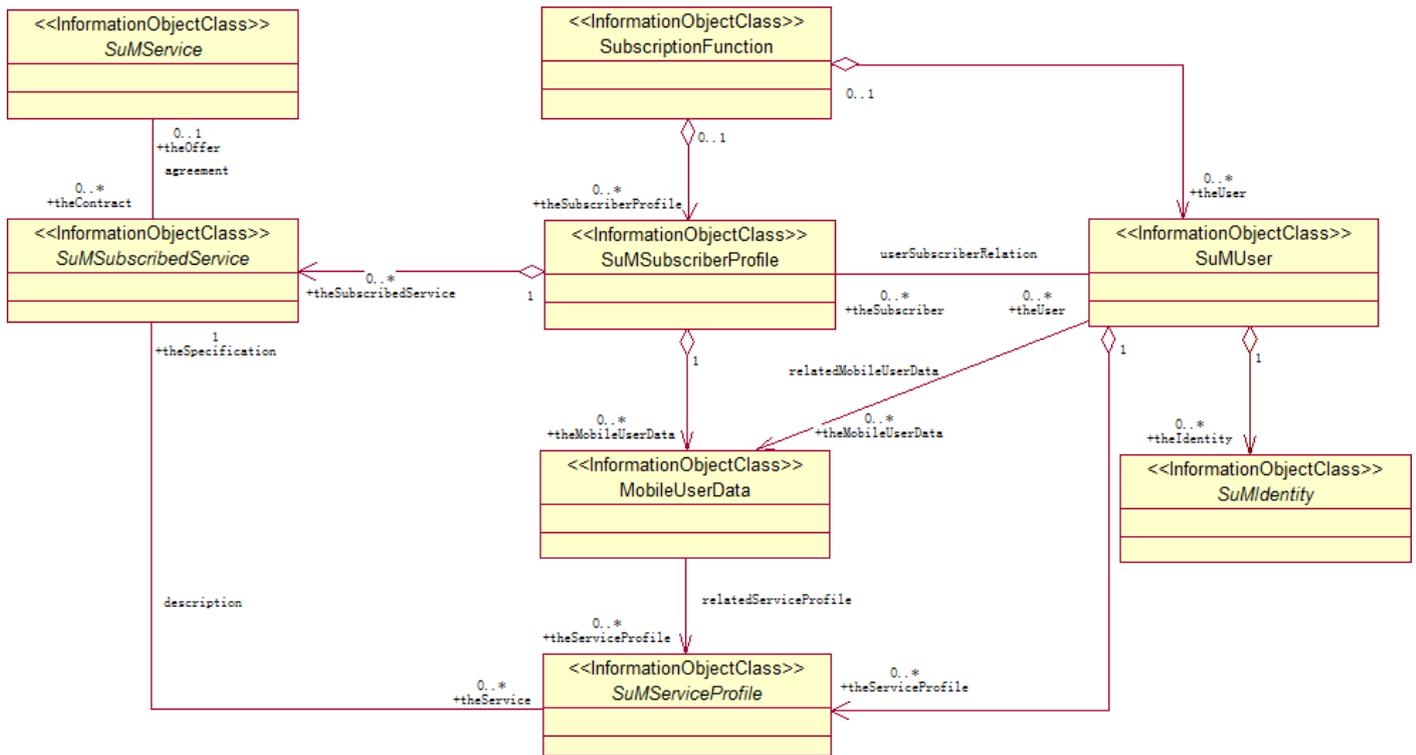
Figure 1b: SuM NRM Containment and Association diagram 1
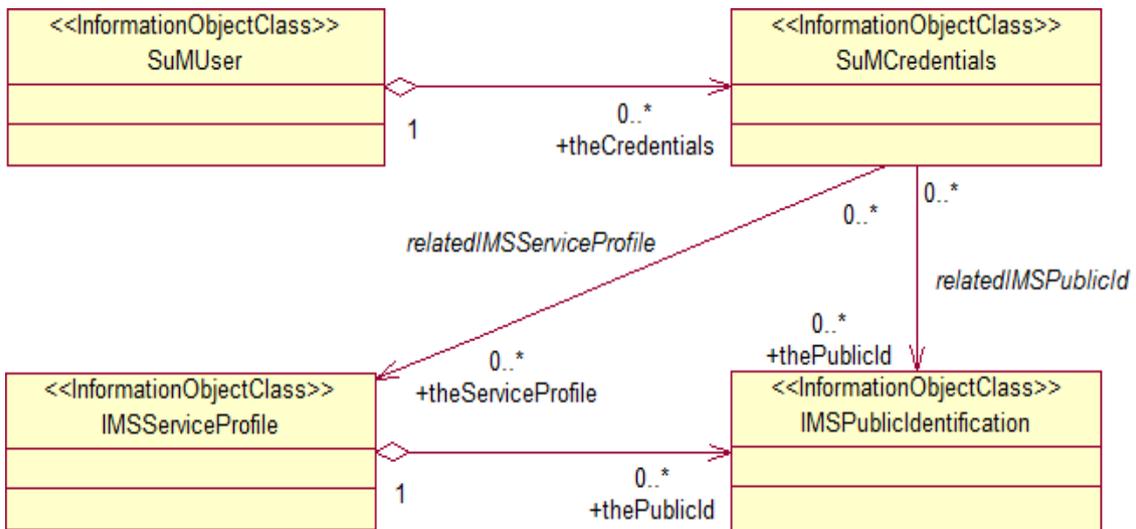
Figure 1c: SuM NRM Containment and Association diagram 2

<<InformationObjectClass>>
CSService

+theCSSupplServiceForCS

1

0..n

<<InformationObjectClass>>
SuMCSSupplService

<<InformationObjectClass>>
GPRSService

+theGPRSSupplServiceForGPRS

1

0..n

<<InformationObjectClass>>
SuMGPRSSupplService
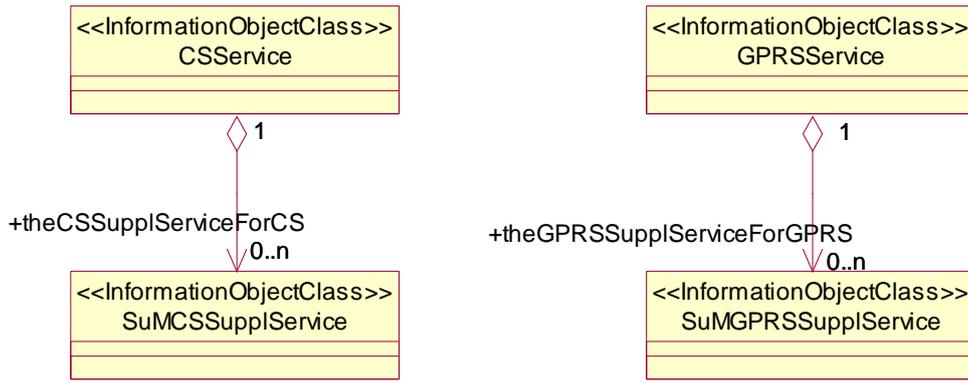
Figure 1d: SuM Supplementary Service NRM Aggregation diagram 1

<<InformationObjectClass>>
CSSubscribedService

+theCSSupplServiceForCSSS

1

0..n

<<InformationObjectClass>>
SuMCSSupplService

<<InformationObjectClass>>
GPRSSSubscribedService

+theGPRSSupplServiceforGPRSSS

1

0..n

<<InformationObjectClass>>
SuMGPRSSupplService
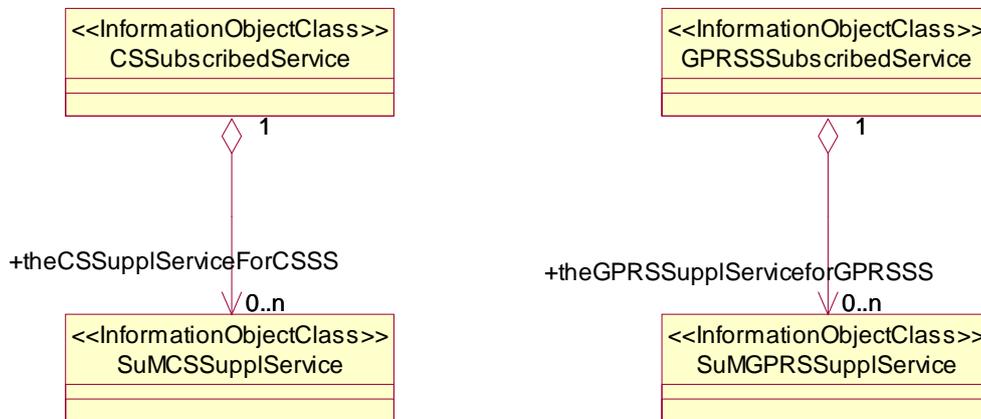
Figure 1e: SuM Supplementary Service NRM Aggregation diagram 2

<<InformationObjectClass>>
CSServiceProfile

+theCSSupplServiceFor CSSP

1

0..n

<<InformationObjectClass>>
SuMCSSupplService

<<InformationObjectClass>>
GPRSServiceProfile

+theGPRSSupplServiceForGPRSSP

1

0..n

<<InformationObjectClass>>
SuMGPRSSupplService
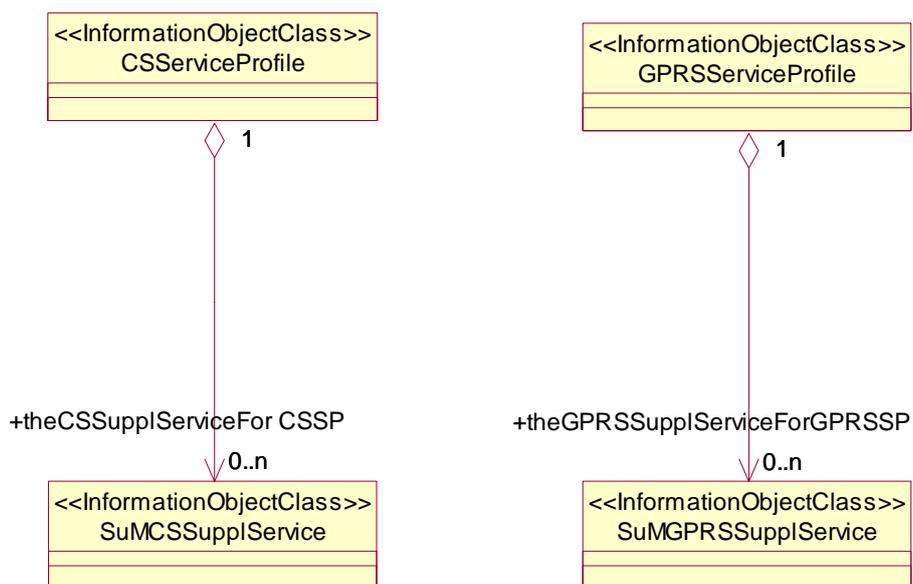
Figure 1f: SuM Supplementary Service NRM Aggregation diagram 3
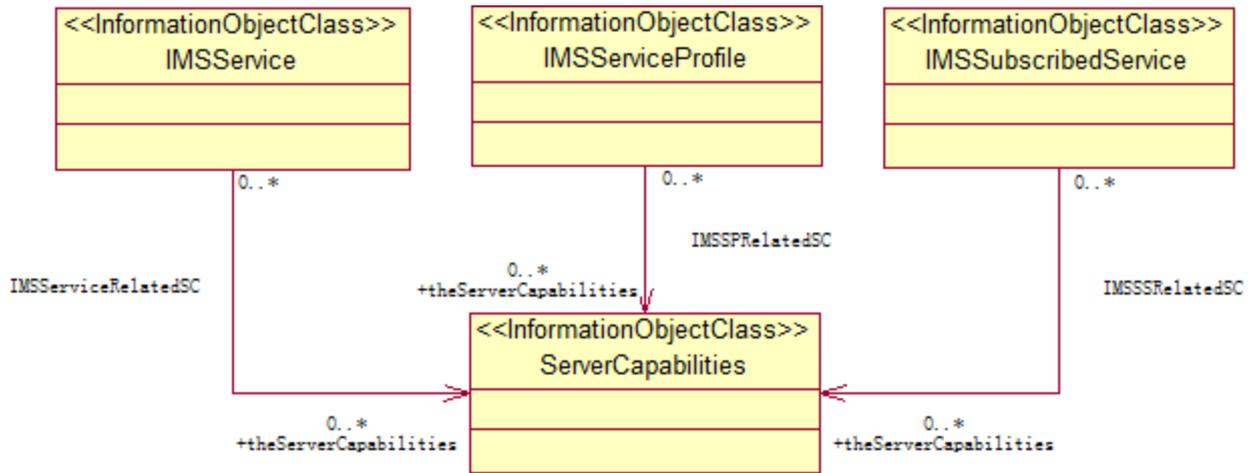
Figure 1g: SuM IMS Service Containment and Association diagram 1
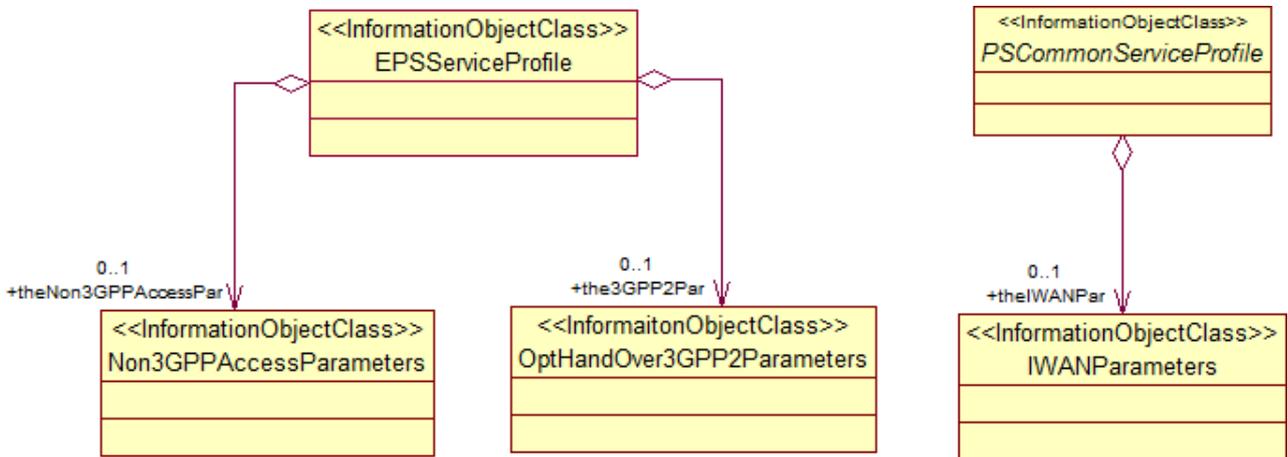
Figure 1.h: Service Profile NRM Association diagram

6.2.2   Inheritance
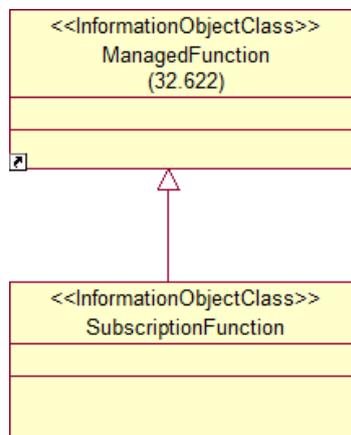
Figure 2a: SuM NRM Inheritance Hierarchy 1
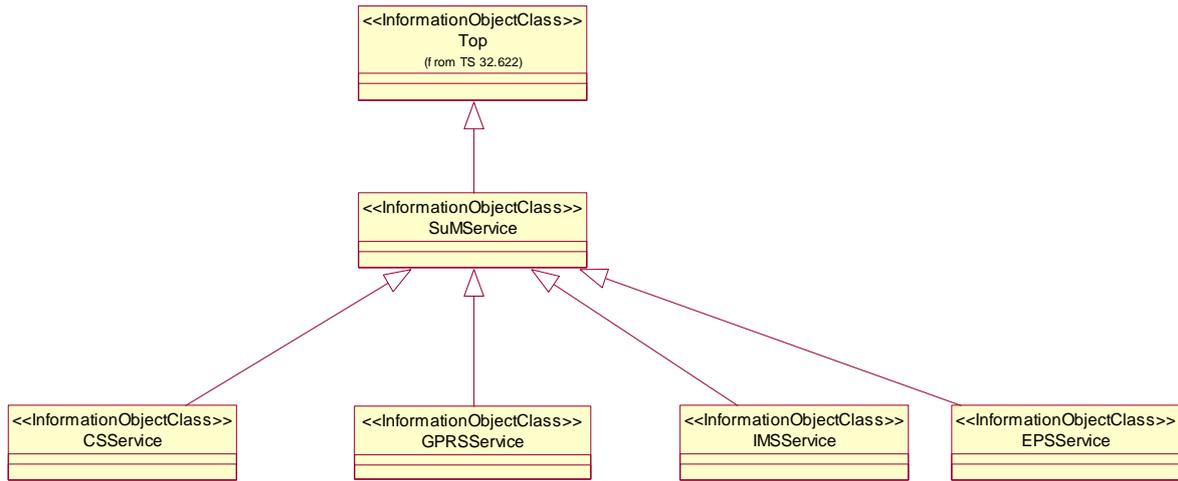
Figure 2b: SuM NRM Inheritance Hierarchy 2
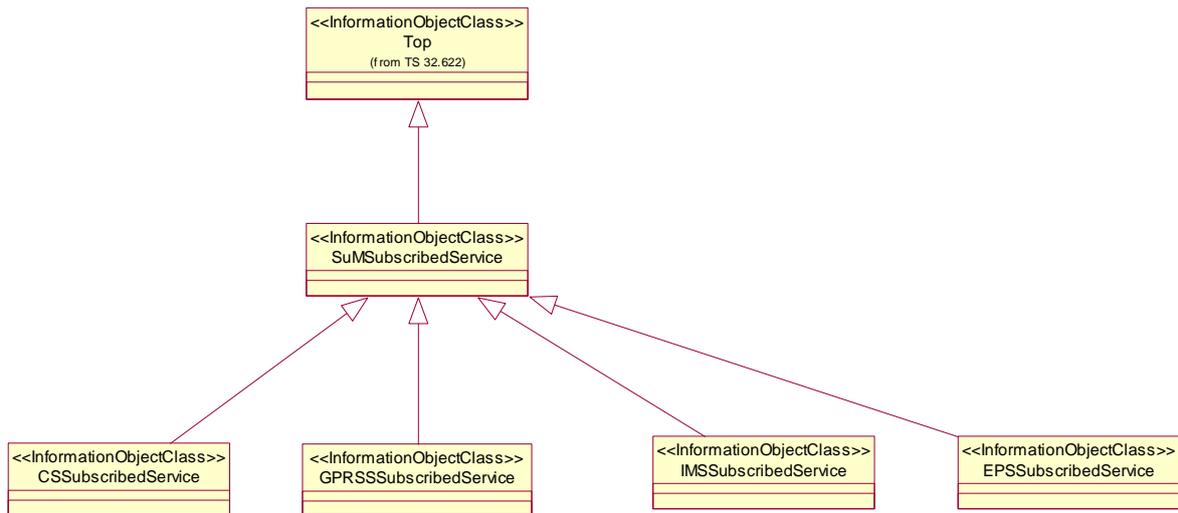
Figure 2c: SuM NRM Inheritance Hierarchy 3
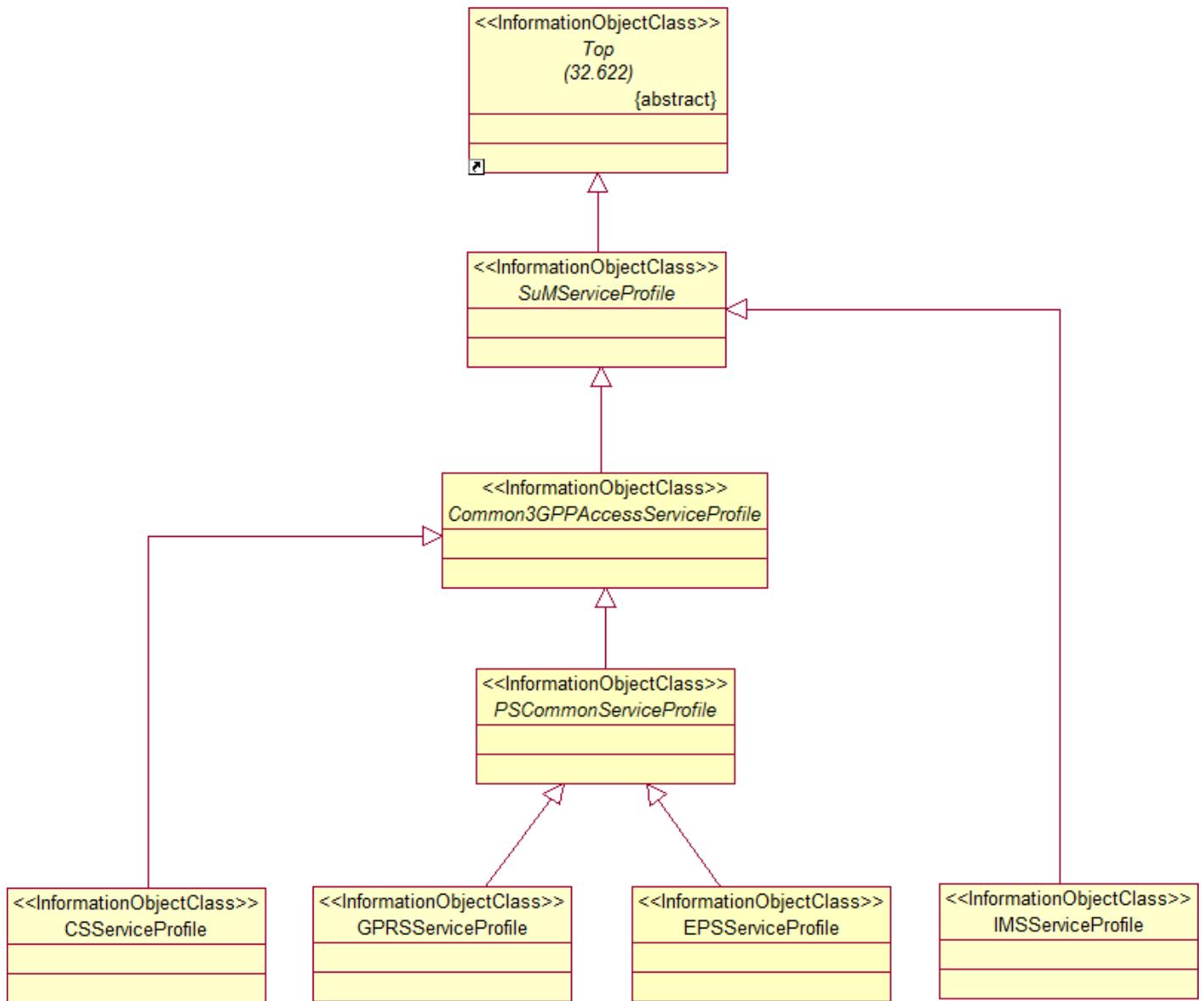
Figure 2d: SuM NRM Inheritance Hierarchy 4
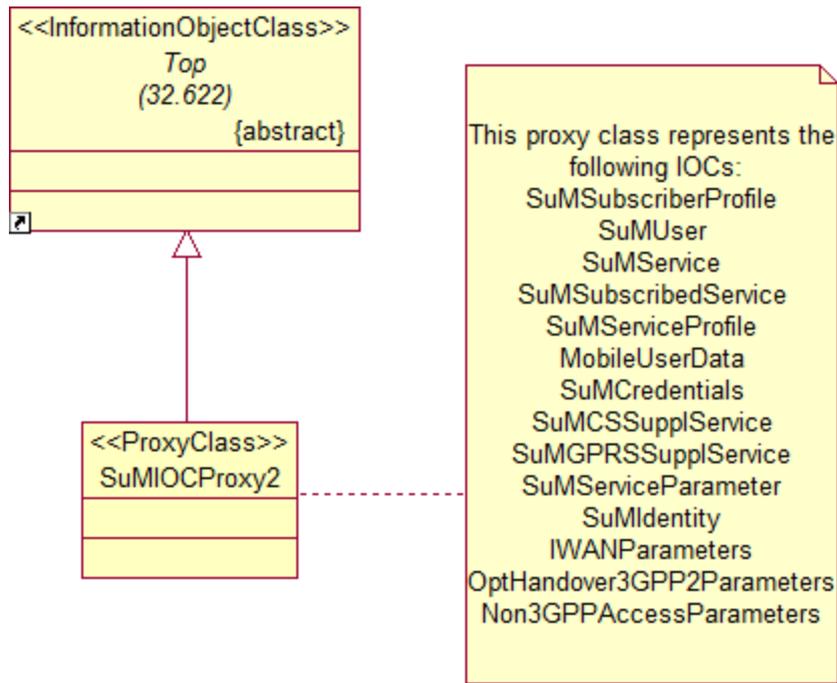
Figure 2e: SuM NRM Inheritance Hierarchy 5

Figure 2f: Void
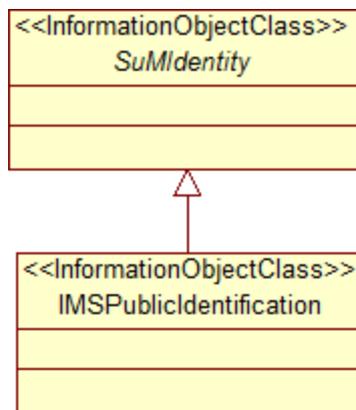
Figure 2g: SuM NRM Inheritance Hierarchy 8
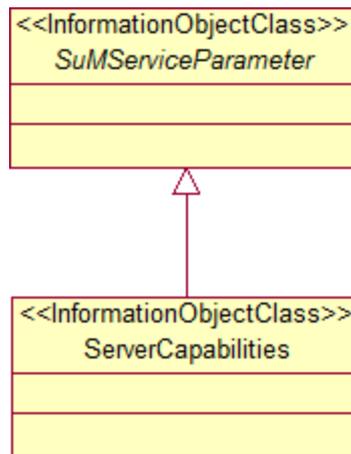
Figure 2h: SuM NRM Inheritance Hierarchy 9

6.3 Information Object Class definitions

6.3.1 SuMService

6.3.1.1 Definition

This is an abstract IOC provided for sub-classing only. It provides attribute(s) that are common to Services IOCs.

6.3.1.2 Attributes

Attributes of SuMService

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
theContract	M	M	O

6.3.2 CSService

6.3.2.1 Definition

This class represents a CS service (see 3GPP TS 23.008 [7]) provided by a service provider

This class contains the valid parameters that define the CS service from subscription point of view.

6.3.2.2 Attributes

Attributes of `CSService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
networkAccessMode	M	M	M
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
subscriptionRestriction	O	M	M
rSZIlists	O	M	M
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
accessRestrictionData	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
mobileStationCategory	O	M	M
lMUIdentifier	O	M	M
subscriberStatus	O	M	M
gsmSCFaddresslistForODB	M	M	M
provisionOfBearerService	M	M	M
provisionOfTeleservice	M	M	M
bCAllocation	O	M	M
barringOfOutgoingCalls	O	M	M
barringOfIncomingCalls	O	M	M
barringOfRoaming	O	M	M
barringOfPremiumRateCalls	O	M	M
barringOfSupplementaryServiceManagement	O	M	M
barringOfRegistrationOfCallForwarding	O	M	M
barringOfInvocationOfCallTransfer	O	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
vGCSGroupMembershipList	O	M	M
vBSGroupMembershipList	O	M	M
broadcastCallInitiationAllowedList	O	M	M
originatingCAMELSubscriptionInformationOCSI	O	M	M
terminatingCAMELSubscriptionInformationTCSI	O	M	M
vMSCTerminatingCAMELSubscriptionInformationVTCSI	O	M	M
locationInformationSubscriberStateInformation	O	M	M
uSSDCAMELSubscriptionInformationUCSI	O	M	M
sSInvocationNotificationSSCSI	O	M	M
translationInformationFlagTIFCSI	O	M	M
dialledServiceCAMELSubscriptionInformationDCSI	O	M	M
uSSDGeneralCAMELServiceInformationUGCSI	O	M	M
shortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
shortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M
mTSMSCSIVLRNegotiatedCAMELCapabilityHandling	O	M	M
gsmSCFaddressforCSI	O	M	M
iSTAlertTimer	O	M	M
cSAllocationRetentionpriority	O	M	M
theCSSupplServiceForCS	M	M	O
iCSIndicator	O	M	M

6.3.2.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.3 GPRSService

6.3.3.1 Definition

This class represents a GPRS service (see 3GPP TS 23.008 [7]) provided by a service provider

This class contains the valid parameters that define the GPRS service from subscription point of view.

6.3.3.2 Attributes

Attributes of GPRSService

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
networkAccessMode	M	M	M
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
rSZIlists	O	M	M
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
accessRestrictionData	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
gGSNNumber	M	M	M
provisionofTeleservice	O	M	M
transferofSMoption	M	M	M
subscriberStatus	M	M	M
barringofPacketOrientedServices	O	M	M
pDPType	O	M	M
pDPAddress	O	M	M
accessPointName	O	M	M
vPLMNAddressAllowed	O	M	M
qualityofServiceSubscribed	O	M	M
pDPContextChargingCharacteristics	O	M	M
gPRSCAMELSubscriptionInformationGPRSCSI	O	M	M
mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M
mOSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mTSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mobilityManagementforGPRSeventnotificationMGCSI	O	M	M
mGCSINegotiatedCAMELCapabilityHandling	O	M	M
gsmSCFaddressforCSI	O	M	M
subscribedChargingCharacteristics	O	M	M
closedSubscriberGroupInformation	O	M	M
gSMSCFaddresslistForODB	O	M	M
barringOfOutgoingCalls	O	M	M
barringOfRoaming	O	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
sTNSR	O	M	M
iCSIndicator	O	M	M
listofauthorizedvisitednetworkidentifiers	O	M	M
wLANUERemoteIPaddress	O	M	M
staticWLANUERemoteIPAddressList	O	M	M
w-APNBarringTypeList	O	M	M
w-APNChargingDataList	O	M	M

accessDependenceFlag	O	M	M
chargingCharacteristics	O	M	M
primaryOCSChargingFunctionName	O	M	M
secondaryOCSChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	O	M	M
secondaryChargingCollectionFunctionName	O	M	M
thePSSupplServiceForPS	M	M	O
w-APNIdentifierList	O	M	M
maxNumberAccessesList	O	M	M
maxSubscribedBandwidth	O	M	M
subscribed3GPPWLANQoSProfile	O	M	M

6.3.3.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.4 `IMSService`

6.3.4.1 Definition

This class represents a IMS service (see 3GPP TS 23.008 [7]) provided by a service provider

This class contains the valid parameters that define the IMS service from subscription point of view.

6.3.4.2 Attributes

Attributes of `IMSService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
listofauthorizedvisitednetworkidentifiers	M	M	M
registrationStatus	M	M	M
sCSCFName	O	M	-
diameterClientAddressofSCSCF	O	M	-
theServerCapabilities	O	M	-
subscribedMediaProfileIdentifier	O	M	M
initialFilterCriteriaList	O	M	M
applicationServerInformation	O	M	M
serviceIndicationList	O	M	-
primaryEventChargingFunctionName	O	M	M
secondaryEventChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	M	M	M
secondaryChargingCollectionFunctionName	O	M	M
gsmSCFaddressforIMCSI	O	M	M
oIMCSI	O	M	M
vTIMCSI	O	M	M
dIMCS	O	M	M
gAAServiceType	O	M	M
gAAServiceIdentifier	O	M	M
gBAUserSecuritySettings	O	M	M
userSecuritySetting	O	M	M
userPublicIdentity	O	M	M
gAAAuthorizationflag	O	M	M
keyLifetime	O	M	M
uICCSecurityType	O	M	M
nAFGroupIdentity	O	M	M

6.3.4.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.5 SuMSubscribedService

6.3.5.1 Definition

This is an abstract IOC provided for sub-classing only. It provides attribute(s) that are common to Subscribed Services IOCs.

6.3.5.2 Attributes

Attributes of SuMSubscribedService

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
theService	M	M	O
theOffer	M	M	O

6.3.6 CSSubscribedService

6.3.6.1 Definition

This class represents subscription to a CS service (see 3GPP TS 23.008 [7]) for a subscriber. The entire set of CS subscribed services owned by a subscriber constitutes the subscriber's Subscribed Services Profile for CS services.

This class contains the agreed (between the Subscriber and the Service Provider) parameter settings for a CS service that a Subscriber subscribes to.

6.3.6.2 Attributes

Attributes of `CSSubscribedService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
networkAccessMode	M	M	M
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
subscriptionRestriction	O	M	M
rSZIlists	O	M	M
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
accessRestrictionData	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
mobileStationCategory	O	M	M
lMUIdentifier	O	M	M
subscriberStatus	O	M	M
gsmSCFaddresslistForODB	M	M	M
provisionOfBearerService	M	M	M
provisionOfTeleservice	M	M	M
bCAllocation	O	M	M
barringOfOutgoingCalls	O	M	M
barringOfIncomingCalls	O	M	M
barringOfRoaming	O	M	M
barringOfPremiumRateCalls	O	M	M
barringOfSupplementaryServiceManagement	O	M	M
barringOfRegistrationOfCallForwarding	O	M	M
barringOfInvocationOfCallTransfer	O	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
vGCSGroupMembershipList	O	M	M
vBSGroupMembershipList	O	M	M
broadcastCallInitiationAllowedList	O	M	M
originatingCAMELSubscriptionInformationOCSI	O	M	M
terminatingCAMELSubscriptionInformationTCSI	O	M	M
vMSCTerminatingCAMELSubscriptionInformationVTCSI	O	M	M
locationInformation/SubscriberStateInformation	O	M	M
uSSDCAMELSubscriptionInformationUCSI	O	M	M
sSInvocationNotificationSSCSI	O	M	M
translationInformationFlagTIFCSI	O	M	M
dialledServiceCAMELSubscriptionInformationDCSI	O	M	M
uSSDGeneralCAMELServiceInformationUGCSI	O	M	M
shortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
shortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M
mTSMSCSIVLRNegotiatedCAMELCapabilityHandling	O	M	M
gsmSCFaddressforCSI	O	M	M
iSTAlertTimer	O	M	M
cSAllocationRetentionpriority	O	M	M
theCSSupplServiceForCSSS	M	M	O
iCSIndicator	O	M	M

6.3.6.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.7 GPRSSubscribedService

6.3.7.1 Definition

This class represents subscription to a GPRS service (see 3GPP TS 23.008 [7]) for a subscriber. The entire set of GPRS subscribed services owned by a subscriber constitutes the subscriber's Subscribed Services Profile for GPRS services.

6.3.7.2 Attributes

Attributes of `GPRSSubscribedService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
networkAccessMode	M	M	M
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
rSZIlists	O	M	M
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
accessRestrictionData	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
gGSNNumber	M	M	M
provisionofTeleservice	O	M	M
transferofSMoption	M	M	M
subscriberStatus	M	M	M
barringofPacketOrientedServices	O	M	M
pDPType	O	M	M
pDPAddress	O	M	M
accessPointName	O	M	M
vPLMNAddressAllowed	O	M	M
qualityofServiceSubscribed	O	M	M
pDPContextChargingCharacteristics	O	M	M
gPRSCAMELSubscriptionInformationGPRSCSI	O	M	M
mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M
mOSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mTSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mobilityManagementforGPRSeventnotificationMGCSI	O	M	M
mGCSINegotiatedCAMELCapabilityHandling	O	M	M
gsmSCFaddressforCSI	O	M	M
subscribedChargingCharacteristics	O	M	M
closedSubscriberGroupInformation	O	M	M
gSMSCFaddresslistForODB	O	M	M
barringOfOutgoingCalls	O	M	M
barringOfRoaming	O	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
sTNSR	O	M	M
iCSIndicator	O	M	M
listofauthorizedvisitednetworkidentifiers	O	M	M
wLANUERemoteIPaddress	O	M	M
staticWLANUERemoteIPAddressList	O	M	M
w-APNBarringTypeList	O	M	M
w-APNChargingDataList	O	M	M
accessDependenceFlag	O	M	M
		-	-
chargingCharacteristics	O	M	M
primaryOCSChargingFunctionName	O	M	M
secondaryOCSChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	O	M	M
secondaryChargingCollectionFunctionName	O	M	M
w-APNIdentifierList	O	M	M
maxNumberAccessesList	O	M	M
maxSubscribedBandwidth	O	M	M

subscribed3GPPWLANQoSProfile	O	M	M

6.3.7.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.8 IMSSubscribedService

6.3.8.1 Definition

This class represents subscription to an IMS (see 3GPP TS 23.008 [7]) service for a subscriber. The entire set of IMS subscribed services owned by a subscriber constitutes the subscriber's Subscribed Services profile for IMS services.

This class contains the agreed (between the Subscriber and the Service Provider) parameter settings for an IMS service that a Subscriber subscribes to.

6.3.8.2 Attributes

Attributes of IMSSubscribedService

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
listofauthorizedvisitednetworkidentifiers	M	M	M
registrationStatus	M	M	M
sCSCFName	O	M	-
diameterClientAddressofSCSCF	O	M	-
theServerCapabilities	O	M	-
subscribedMediaProfileIdentifier	O	M	M
initialFilterCriteriaList	O	M	M
applicationServerInformation	O	M	M
serviceIndicationList	O	M	-
primaryEventChargingFunctionName	O	M	M
secondaryEventChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	M	M	M
secondaryChargingCollectionFunctionName	O	M	M
gsmSCFaddressforIMCSI	O	M	M
oIMCSI	O	M	M
vTIMCSI	O	M	M
dIMCS	O	M	M
gAAServiceType	O	M	M
gAAServiceIdentifier	O	M	M
gBAUserSecuritySettings	O	M	M
userSecuritySetting	O	M	M
userPublicIdentity	O	M	M
gAAAuthorizationflag	O	M	M
keyLifetime	O	M	M
uICCSecurityType	O	M	M
nAFGroupIdentity	O	M	M

6.3.8.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.9 SuMSubscriberProfile

6.3.9.1 Definition

This class represents the Subscriber Profile.

This class also contains the reference to its aggregated Subscribed Service as well as the users for a subscriber.

6.3.9.2 Attributes

Attributes of SuMSubscriberProfile

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
suMSubscriberProfileInfo	M	M	O
theUser	M	M	O
theSubscribedService	M	M	O
theMobileUserData	M	M	O

6.3.10 Void

6.3.11 SuMServiceProfile

6.3.11.1 Definition

This is an abstract IOC provided for sub-classing only. It provides attribute(s) that are common to Service Profiles IOCs.

6.3.11.2 Attributes

Attributes of SuMServiceProfile

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
theSpecification	M	M	O

6.3.12 CSServiceProfile

6.3.12.1 Definition

This class represents for a subscribed CS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user.

6.3.12.2 Attributes

Attributes of `CSServiceProfile`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
vLRNumber	M	M	-
mSCNumber	M	M	-
subscriptionRestriction	O	M	M
mSCAreaRestrictedFlag	M	M	-
oDBinducedBarringData	O	M	-
roamingRestrictionDueToUnsupportedFeature	M	M	-
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
ageIndicator	O	M	-
lMSI	M	M	-
mobileStationCategory	M	M	M
lMUIdentifier	O	M	M
mNRRMSC	M	M	-
notificationToCSEFlagForODB	O	M	-
gsmSCFaddresslistForODB	O	M	M
messagesWaitingData	O	M	-
mobileStationNotReachableFlag	O	M	-
memoryCapacityExceededFlag	M	M	-
traceReference	O	M	-
traceType	O	M	-
operationsSystemsIdentity	O	M	-
hLRTraceType	O	M	-
mAPErrorOnTrace	O	M	-
traceActivatedInVLR	O	M	-
provisionOfBearerService	M	M	M
provisionOfTeleservice	M	M	M
bCAllocation	O	M	M
checkSSIndicator	M	M	-
mSPurgedForNonGPRSFlag	M	M	-
barringOfIncomingCalls	O	M	M
barringOfPremiumRateCalls	O	M	M
barringOfSupplementaryServiceManagement	O	M	M
barringOfRegistrationOfCallForwarding	O	M	M
barringOfInvocationOfCallTransfer	O	M	M
vGCSGroupMembershipList	O	M	M
vBSGroupMembershipList	O	M	M
broadcastCallInitiationAllowedList	O	M	M
originatingCAMELSubscriptionInformationOCSI	O	M	M
terminatingCAMELSubscriptionInformationTCSI	O	M	M
vMSCTerminatingCAMELSubscriptionInformationVTCSI	O	M	M
locationInformationSubscriberStateInformation	O	M	M
uSSDCAMELSubscriptionInformationUCSI	O	M	M
sSInvocationNotificationSSCSI	O	M	M
translationInformationFlagTIFCSI	O	M	M
dialledServiceCAMELSubscriptionInformationDCSI	O	M	M
uSSDGeneralCAMELServiceInformationUGCSI	O	M	M
oCSINegotiatedCAMELCapabilityHandling	O	M	-
sSCSINegotiatedCAMELCapabilityHandling	O	M	-
vTCSINegotiatedCAMELCapabilityHandling	O	M	-
shortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
shortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
mOSMSCSIVLRNegotiatedCAMELCapabilityHandling	O	M	-
mTSMSCSIVLRNegotiatedCAMELCapabilityHandling	O	M	M
mCSINegotiatedCAMELCapabilityHandling	O	M	-
vLRSupportedCAMELPhases	O	M	-
gsmSCFaddressforCSI	O	M	M
vLROfferedCAMEL4CSIs	O	M	-
iSTAlertTimer	O	M	M
cSAllocationRetentionpriority	O	M	M

6.3.12.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.13 `GPRSSServiceProfile`

6.3.13.1 Definition

This class represents for a subscribed GPRS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user.

6.3.13.2 Attributes

Attributes of `GPRSServiceProfile`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
basicMSISDNIndicator	O	M	M
mSISDNAlertIndicator	O	M	M
vLRNumber	M	M	-
lSAIdentity	O	M	M
lSAPriority	O	M	M
lSAPreferentialAccessIndicator	O	M	M
lSAActiveModeSupportIndicator	O	M	M
lSAOnlyAccessIndicator	O	M	M
lSAActiveModeIndicator	O	M	M
vPLMNIdentifier	O	M	M
ageIndicator	O	M	-
sGSNNumber	M	M	-
gGSNumber	M	M	M
mNRG	M	M	-
provisionofTeleservice	O	M	M
transferofSMoption	M	M	M
mSpurgedforGPRSflag	M	M	-
pDPType	O	M	M
pDPAddress	O	M	M
gGSNlist	M	M	-
qualityofServiceSubscribed	O	M	M
pDPContextIdentifier	O	M	-
pDPContextChargingCharacteristics	O	M	M
gPRSCAMELSubscriptionInformationGPRSCSI	O	M	M
mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI	O	M	M
mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI	O	M	M
mOSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mTSMSCSISGSNNegotiatedCAMELCapabilityHandling	O	M	M
mobilityManagementforGPRSeventnotificationMGCSI	O	M	M
mGCSINegotiatedCAMELCapabilityHandling	O	M	M
gPRSCSINegotiatedCAMELCapabilityHandling	O	M	-
sGSNSupportedCAMELPhases	O	M	-
sGSNOfferedCAMEL4CSIs	O	M	-
gsmSCFaddressforCSI	O	M	M
gSMSCFaddresslistForODB	O	M	M
iPSMGWNumber	O	M	-
mNRR-SGSN	O	M	-
notificationToCSEFlagForODB	O	M	-

6.3.13.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.14 `IMSServiceProfile`

6.3.14.1 Definition

This class represents for a subscribed IMS (see 3GPP TS 23.008 [7]) service the service preferences and settings chosen for a user.

This class contains the reference to its aggregated IMS Public Identifications.

6.3.14.2 Attributes

Attributes of `IMSServiceProfile`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
listofauthorizedvisitednetworkidentifiers	M	M	M
registrationStatus	M	M	M
sCSCFName	O	M	-
diameterClientAddressofSCSCF	O	M	-
theServerCapabilities	O	M	-
subscribedMediaProfileIdentifier	O	M	M
initialFilterCriteriaList	O	M	M
applicationServerInformation	O	M	M
serviceIndicationList	O	M	-
primaryEventChargingFunctionName	O	M	M
secondaryEventChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	M	M	M
secondaryChargingCollectionFunctionName	O	M	M
gsmSCFaddressforIMCSI	O	M	M
iMSSFaddressforIMCSI	O	M	-
oIMCSI	O	M	M
vTIMCSI	O	M	M
dIMCS	O	M	M
gAAServiceType	O	M	M
gAAServiceIdentifier	O	M	M
gBAUserSecuritySettings	O	M	M
userSecuritySetting	O	M	M
userPublicIdentity	O	M	M
gAAAuthorizationflag	O	M	M
keyLifetime	O	M	M
uICCSecurityType	O	M	M
nAFGroupIdentity	O	M	M
thePublicId	M	M	O

6.3.14.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.15 Void

6.3.16 `SubscriptionFunction`

6.3.16.1 Definition

This class represents subscription functionality.

All managed elements related to the subscription of services have this functionality.

This class inherits from ManagedFunction (defined in 32.622 [6]).

This class contains the reference to its aggregated Users.

This class contains the reference to its aggregated Subscriber Profiles.

6.3.16.2 Attributes

Attributes of `SubscriptionFunction`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
userLabel	M	M	M
theUser	M	M	O
theSubscriberProfile	M	M	O

6.3.17 `SuMCSSupplService`

6.3.17.1 Definition

This class represents a Supplementary Service for a CS service (see 3GPP TS 23.008 [7]) provided by a service provider

This class contains the valid parameters that define the CS supplementary service from subscription point of view.

6.3.17.2 Attributes

Attributes of `SuMCSSupplService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
sS-Code	M	M	M
provisioningState	M	M	M
activationState	M	M	M
registrationState	O	M	M
overrideCategory	O	M	M
cLIRestrictionOption	O	M	M
forwarded-toNumber	O	M	M
forwarded-toSubaddress	O	M	M
noReplyConditionTimer	O	M	M
maximumEntitledPriority	O	M	M
defaultPriority	O	M	M
nbrUser	O	M	M
nbrSB	O	M	M

6.3.17.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.18 `SuMGPRSSupplService`

6.3.18.1 Definition

This class represents a Supplementary Service for a GPRS service (see 3GPP TS 23.008 [7]) provided by a service provider

This class contains the valid parameters that define the GPRS supplementary service from subscription point of view.

6.3.18.2 Attributes

Attributes of `SuMGPRSSupplService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
sS-Code	M	M	M
provisioningState	M	M	M
activationState	M	M	M

6.3.18.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.19 `SuMUser`

6.3.19.1 Definition

This class represents a User.

This class contains the valid parameters that define the User from subscription point of view.

6.3.19.2 Attributes

Attributes of `SuMUser`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
theMobileUserData	M	M	O
theSubscriber	O	M	O
theCredentials	M	M	O
theServiceProfile	M	M	O
theIdentity	O	M	O

6.3.20 SuMCredentials

6.3.20.1 Definition

This class represents a User's credentials.

This class contains the valid parameters that define the credentials from subscription point of view.

6.3.20.2 Attributes

Attributes of SuMCredentials

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
thePublicId	M	M	O
theServiceProfile	M	M	O
iMSPrivateUserIdentity	M	M	M

6.3.21 IMSPublicIdentification

6.3.21.1 Definition

This class represents the IMS Public Identification (see 3GPP TS 23.008 [7] and 3GPP TS 29.228 [8]).

This class contains the valid parameters that define the IMS Public Identification from subscription point of view.

6.3.21.2 Attributes

Attributes of IMSPublicIdentification

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
publicUserIdentity	M	M	M
barringIndication	M	M	M

6.3.22 `MobileUserData`

6.3.22.1 Definition

This class represents user data of a mobile User Equipment

This class contains the valid parameters that define the user data of the mobile User Equipment from subscription point of view.

6.3.22.2 Attributes

Attributes of `MobileUserData`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
theServiceProfile	M	M	O
iMSI	M	M	M
mSISDN	M	M	M
multinumberingMSISDNs	M	M	M
iMEISV	O	M	-

6.3.23 Void

6.3.24 `SuMServiceParameter`

6.3.24.1 Definition

This class represents a structured Service Parameter defined for a service and is an abstract class provided for sub-classing only.

This class shall be used as a base when having the requirement to provision common shared data referred to by specific SuMSubscribedService or SuMServiceProfile instances.

6.3.24.2 Attributes

Attributes of `SuMServiceParameter`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-

6.3.25 `SuMIdentity`

6.3.25.1 Definition

This class represents a user related identity, regardless of any type service to be provisioned and is an abstract class provided for sub-classing only.

This class allows an identity to be used for multiple services.

6.3.25.2 Attributes

Attributes of `SuMIdentity`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-

6.3.26 `ServerCapabilities`

6.3.26.1 Definition

This class is used to provision common shared ServerCapabilities data referred by specific SuMSubscribedService or SuMServiceProfile instances.

This class contains information to assist the I-CSCF in the selection of an S-CSCF for an IMS subscriber or a PSI user.

6.3.26.2 Attributes

Attributes of `ServerCapabilities`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
serverCapabilities	M	M	M

6.3.27 EPSService

6.3.27.1 Definition

This class represents an EPS service (see 3GPP TS 23.008 [7]) provided by a service provider. This class contains the valid parameters that define the EPS service from a subscription point of view.

6.3.27.2 Attributes

Attributes of `EPSService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
accessPointName	O	M	M
access Restriction Data	O	M	M
aPNAMBR	M	M	M
barringofPacketOrientedServices	O	M	M
contextIdentifier	M	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
pDNAddress	O	M	M
rSZILists	O	M	M
sTNSR	O	M	M
subscribedChargingCharacteristics	O	M	M
subscriberStatus	O	M	M
networkAccessMode	M	M	M
barringOfOutgoingCalls	O	M	M
barringOfRoaming	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
iCSIndicator	O	M	M
aPNOIReplacement	O	M	M
subscribedUEAMBR	M	M	M
aPNConfigurationProfile	M	M	M
rFSP	O	M	M
vPLMNAddressAllowed-EPS	M	M	M
pDNGWIdentity	O	M	M
ePSPDNConnectionChargingCharacteristics	O	M	M
pDNGWAllocationType	M	M	M
aPNLevelAPNOIReplacement	O	M	M
closedSubscriberGroupInformation	O	M	M
listofauthorizedvisitednetworkidentifiers	O	M	M
staticWLANUERemoteIPAddressList	O	M	M
w-APNBarringTypeList	O	M	M
w-APNChargingDataList	O	M	M
wLANUERemoteIPAddress	O	M	M
accessDependenceFlag	O	M	M
chargingCharacteristics	O	M	M
primaryOCSChargingFunctionName	O	M	M
secondaryOCSChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	O	M	M
secondaryChargingCollectionFunctionName	O	M	M
w-APNIdentifierList	O	M	M
maxNumberAccessesList	O	M	M
maxSubscribedBandwidth	O	M	M
subscribed3GPPWLANQoSProfile	O	M	M
permanentUserIdentity	O	M	M
mIPSubscriberProfile	O	M	M
accessRestrictionData	O	M	M

6.3.27.3   Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.28   EPSSubscribedService

6.3.28.1   Definition

This class represents subscription to an EPS service (see 3GPP TS 23.008 [7]) for a subscriber. The entire set of EPS subscribed services owned by a subscriber constitutes the subscriber's Subscribed Services Profile for EPS services.

This class contains the agreed (between the Subscriber and the Service Provider) parameter settings for an EPS service that a Subscriber subscribes to.

6.3.28.2 Attributes

Attributes of `EPSSubscribedService`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
accessPointName	O	M	M
access Restriction Data	O	M	M
aPNAMBR	M	M	M
barringofPacketOrientedServices	O	M	M
contextIdentifier	M	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
pDNAddress	O	M	M
rSZILists	O	M	M
sTNSR	O	M	M
subscribedChargingCharacteristics	O	M	M
subscriberStatus	O	M	M
networkAccessMode	M	M	M
barringOfOutgoingCalls	O	M	M
barringOfRoaming	O	M	M
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
iCSIndicator	O	M	M
aPNOIReplacement	O	M	M
subscribedUEAMBR	M	M	M
aPNConfigurationProfile	M	M	M
rFSP	O	M	M
vPLMNAddressAllowed-EPS	M	M	M
pDNGWIdentity	O	M	M
ePSPDNConnectionChargingCharacteristics	O	M	M
pDNGWAllocationType	M	M	M
aPNLevelAPNOIReplacement	O	M	M
closedSubscriberGroupInformation	O	M	M
Listofauthorizedvisitednetworkidentifiers	O	M	M
wLANUERemoteIPaddress	O	M	M
staticWLANUERemoteIPAddressList	O	M	M
w-APNBarringTypeList	O	M	M
w-APNChargingDataList	O	M	M
accessDependenceFlag	O	M	M
chargingCharacteristics	O	M	M
primaryOCSChargingFunctionName	O	M	M
secondaryOCSChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	O	M	M
secondaryChargingCollectionFunctionName	O	M	M
w-APNIdentifierList	O	M	M
maxNumberAccessesList	O	M	M
maxSubscribedBandwidth	O	M	M
subscribed3GPPWLANQoSProfile	O	M	M
permanentUserIdentity	O	M	M
mIPSubscriberProfile	O	M	M
accessRestrictionData	O	M	M

6.3.28.3   Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (See TS 23.008 [7]).

6.3.29   EPSServiceProfile

6.3.29.1   Definition

This class represents for a subscribed EPS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user.

6.3.29.2   Attributes

Attributes of `EPSServiceProfile`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
aPNAMBR	M	M	M
contextIdentifier	M	M	M
pDNAddress	O	M	M
aPNOIReplacement	O	M	M
subscribedUEAMBR	M	M	M
aPNConfigurationProfile	M	M	M
rFSP	O	M	M
pDNGWIdentity	O	M	M
ePSPDNConnectionChargingCharacteristics	O	M	M
vPLMNAddressAllowed-EPS	M	M	M
pDNGWAllocationType	M	M	M
aPNLevelAPNOIReplacement	O	M	M
roamingRestrictionDueToUnsupportedFeatureMME	M	M	-
roamingRestrictionDueToUnsupportedFeatureSGSN	M	M	-
mSPurgedForEPSFlag	M	M	-
uRRPMME	O	M	-
mMEName	M	M	-
sGSNName	M	M	-
iWFNumber	O	M	-
sGSNAreaRestrictedFlag	M	M	-
theOptHandover3GPP2Par	M	M	O
theNon3GPPAccessPar	M	M	O
thePSCommonPar	M	M	M

6.3.29.3   Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.30   PSCommonServiceProfile

6.3.30.1   Definition

This is an abstract IOC provided for sub-classing only. It provides attribute(s) that are common to PS Service Profile IOCs (Regarding GPRS or EPS service, please see 3GPP TS 23.008 [7]).

6.3.30.2 Attributes

Attributes of PSCommonServiceProfile

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
roamingRestrictedintheSGSNdu etounsupportedfeature	M	M	-
barringofPacketOrientedServi ces	O	M	M
iPAddressOfTraceCollectionEn tity	O	M	-
accessPointName	O	M	M
subscribedChargingCharacteri stics	O	M	M
sTNSR	O	M	M
closedSubscriberGroupInforma tion	O	M	M
theIWANPar	M	M	O

6.3.30.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.31 IWANParameters

6.3.31.1 Definition

This class represents for a subscribed GPRS or EPS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user that are relevant to IWAN services.

6.3.31.2 Attributes

Attributes of IWANParameters

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
w-APN	O	M	-
listofauthorizedvisitednetworkidentifiers	O	M	M
3GPPAAAServerName	O	M	-
3GPPAAAProxyName	O	M	-
wLANUERemoteIPaddress	O	M	M
staticWLANUERemoteIPAddressList	O	M	M
w-APNBarringTypeList	O	M	M
w-APNChargingDataList	O	M	M
accessDependenceFlag	O	M	M
i-WLANAccessType	O	M	-
wLANIdentifierList	O	M	M
maxNumberAccessesList	O	M	M
maxSubscribedBandwidth	O	M	M
subscribed3GPPWLANQoSProfile	O	M	M
chargingCharacteristics	M	M	M
primaryOCSChargingFunctionName	O	M	M
secondaryOCSChargingFunctionName	O	M	M
primaryChargingCollectionFunctionName	O	M	M
secondaryChargingCollectionFunctionName	O	M	M
userStatus	M	M	-

6.3.31.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.32 `OptHandover3GPP2Parameters`

6.3.32.1 Definition

This class represents for a subscribed EPS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user that are relevant to the optimization of handover to a 3GPP2 network.

6.3.32.2 Attributes

Attributes of `OptHandover3GPP2Parameters`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
rATType	O	M	-

6.3.32.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.33 `Non3GPPAccessParameters`

6.3.33.1 Definition

This class represents for a subscribed EPS service (see 3GPP TS 23.008 [7]) the service preferences and settings chosen for a user that are relevant to use of an non-3GPP access network.

6.3.33.2 Attributes

Attributes of `NonGPPAccessParameters`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
id	M	M	-
rATType	O	M	-
visitedNetworkIdentifier	O	M	-
mIPSubscriberProfile	M	M	M
permanentUserIdentity	M	M	M

6.3.33.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.3.34 Common3GPPAccessServiceProfile

6.3.34.1 Definition

This is an abstract IOC provided for sub-classing only. It provides attribute(s) that are common to CS/PS Service Profile IOCs (Regarding CS, GPRS or EPS service, please see 3GPP TS 23.008 [7]).

6.3.34.2 Attributes

Attributes of `Common3GPPAccessServiceProfile`

Attribute name	Support Qualifier	Read Qualifier	Write Qualifier
rSZIlists	O	M	M
accessRestrictionData	O	M	M
subscriberStatus	O	M	M
barringOfOutgoingCalls	O	M	M
barringOfRoaming	O	M	M
operatorDeterminedBarringPLMNspecificData	O	M	M
traceReference2	O	M	-
traceDepth	O	M	-
listOfNETypestoTrace	O	M	-
triggeringEvents	O	M	-
listOfInterfacesToTrace	O	M	-
privacyExceptionList	O	M	M
gMLCNumbers	O	M	M
iCSIndicator	O	M	M
mOLRList	O	M	M
serviceTypes	O	M	M
networkAccessMode	M	M	M

6.3.34.3 Attribute constraints

The optional attributes shall be supported for the following criteria: The NE supports the parameter (see TS 23.008 [7]).

6.4 Information relationship definitions

6.4.1 `agreement`

6.4.1.1 Definition

This represents the agreement relationship between `SuMService` and `SuMSubscribedService`.

6.4.1.2 Roles

Name	Definition
theContract	The `SuMSubscribedService` represents an agreed contract for a `SuMService`.
theOffer	The `SuMService` represents an offer of an agreement to a `SuMSubscribedService`.

6.4.1.3 Constraints

The relationship is between a service and a subscription to the same type of service (for example between `CSService` and `CSSubscribedService`).

6.4.2 `description`

6.4.2.1 Definition

This represents the content description relationship between `SuMSubscribedService` and `SuMServiceProfile`.

6.4.2.2 Roles

Name	Definition
theSpecification	`SuMSubscribedService` acts as the specification for the description of `SuMServiceProfile`.
theService	`SuMServiceProfile` acts as the service specified in the description.

6.4.2.3 Constraints

The relationship is between a subscribed service and a service profile of the same type of service (for example between `CSSubscribedService` and `CSServiceProfile`).

6.4.3 `userSubscriberRelation`

6.4.3.1 Definition

This represents the relationship between `SuMUser` and `SuMSubscriberProfile`. This relationship is optional.

6.4.3.2 Roles

Name	Definition
theUser	Represents the User to which the Subscriber links.
theSubscriber	Represents the Subscriber to which the User links.

6.4.4 `relatedMobileUserData`

6.4.4.1 Definition

This represents the relationship between `SuMUser` and `MobileUserData`.

6.4.4.2 Roles

Name	Definition
`theMobileUserData`	Represents the user data of the mobile User Equipment being used.

6.4.5 `relatedServiceProfile`

6.4.5.1 Definition

This represents the relationship between `MobileUserData` and `SuMServiceProfile`.

6.4.5.2 Roles

Name	Definition
`theServiceProfile`	Represents the Service Profile to which the user data of the mobile User Equipment links.

6.4.6 `relatedIMSServiceProfile`

6.4.6.1 Definition

This represents the relationship between `SuMCredentials` and `IMSServiceProfile`.

6.4.6.2 Roles

Name	Definition
`theServiceProfile`	Represents the IMS Service Profile to which IMS Private User Identity links.

6.4.6.3 Constraints

1) This relationship is Conditional Mandatory. The condition is that no instances of `relatedIMSPublicId` are present for the same object instance of `SuMCredentials`.

2) All instances of this relationship from the same object instance of `SuMCredentials` shall be to object instances of `IMSServiceProfile` that are

   i) name-contained by the same object instance of `SuMUser` as name-contains the `SuMCredentials` object instance, and

   ii) associated (through the `description` relationship to `SuMSubscribedService` name-contained by `SuMSubscriberProfile`) to a single object instance of `SuMSubscriberProfile`.

6.4.7   `relatedIMSPublicId`

6.4.7.1   Definition

This represents the relationship between `SuMCredentials` and `IMSPublicIdentification`.

6.4.7.2   Roles

Name	Definition
`thePublicId`	Represents the IMS Public Identification to which IMS Private User Identity links.

6.4.7.3   Constraints

1) This relationship is Conditional Mandatory. The condition is that no instances of `relatedIMSServiceProfile` are present for the same object instance of `SuMCredentials`.

2) All instances of this relationship from the same object instance of `SuMCredentials` shall be to object instances of `IMSPublicIdentification` that are name-contained by object instances of `IMSServiceProfile` that are

    i)   name-contained by the same object instance of `SuMUser` as name-contains the `SuMCredentials` object instance, and

    ii) associated (through the `description` relationship to `SuMSubscribedService` name-contained by `SuMSubscriberProfile`) to a single object instance of `SuMSubscriberProfile`.

6.5 Information attribute definitions

6.5.1 Definitions and legal values

The following table defines the attributes that are present in several IOCs of the present document.

Attributes

Attribute Name	Definition	Legal Values
id	An attribute whose 'name+value' can be used as an RDN when naming an instance of the SuM information object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance.	
suMSubscriberProfileInfo	A description of (information for) the Subscriber Profile. It is with free structure and format.	
userLabel	A user-friendly (and user assigned) name of the associated object. IOCs inheriting from ManagedFunction will have this attribute. Other IOCs may have it as well, if explicitly defined for them.	
theContract	Models the agreement relationship to a subscribed service. This attribute contains a list of the DN(s) of the related SuMSubscribedService instance(s).	
theOffer	Models the agreement relationship to a service. This attribute contains the DN of the related SuMService instance.	
theService	Models the description relationship to a service profile. This attribute contains a list of the DN(s) of the related SuMServiceProfile instance(s).	
theSpecification	Models the description relationship to a subscribed service. An attribute whose 'name+value' can be used as DN when referencing an instance of the SuMSubscribedService object class.	
thePublicId	Models the relatedIMSPublicId relationship from a user's credentials to the IMS Public Identification. This attribute contains a list of the DN(s) of the related IMSPublicIdentification instance(s).	
theMobileUserData	Models the relatedMobileUserData relationship from a user to the user data of a mobile User Equipment. This attribute contains a list of the DN(s) of the related MobileUserData instance(s).	
theServiceProfile	Models the relatedServiceProfile relationship from the user data of a mobile User Equipment to a service profile or from a user's credentials to an IMS service profile. This attribute contains a list of the DN(s) of the related SuMServiceProfile derived instance(s).	
theSubscriber	Models the userSubscriberRelation relationship from a user to a subscriber. This attribute contains a list of the DN(s) of the related SuMSubscriberProfile instance(s).	
theUser	Models the userSubscriberRelation relationship from a subscriber to a user. This attribute contains a list of the DN(s) of the related SuMUser instance(s).	
theCSSupplServiceForCS	Models the relationship from a CS service to a CS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMCSSupplService instance(s).	
thePSSupplServiceForPS	Models the relationship from a PS service to a PS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMPSSupplService instance(s).	
theCSSupplServiceForCSSS	Models the relationship from a CS subscribed service to a CS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMCSSupplService instance(s).	
thePSSupplServiceForPSSS	Models the relationship from a PS subscribed service to a PS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMPSSupplService instance(s).	
theCSSupplServiceForCSSP	Models the relationship from a CS service profile to a CS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMCSSupplService instance(s).	

`thePSSupplServiceForPSSP`	Models the relationship from a PS service profile to a PS supplement service. This attribute contains a list of the DN(s) of the aggregated SuMPSSupplService instance(s).	
`theSubscribedService`	Models the relationship from a subscriber profile to a subscribed service. This attribute contains a list of the DN(s) of the aggregated SuMSubscribedService derived instance(s).	
`thePublicId`	Models the relationship from an IMS service profile to a public identification. This attribute contains a list of the DN(s) of the aggregated IMSPublicIdentification instance(s).	
`theUser`	Models the relationship from a Subscription Function to a user. This attribute contains a list of the DN(s) of the aggregated SuMUser instance(s).	
`theSubscriberProfile`	Models the relationship from a Subscription Function to a subscriber profile. This attribute contains a list of the DN(s) of the aggregated SuMSubscriberProfile instance(s).	
`theCredentials`	Models the relationship from a user to a credential. This attribute contains a list of the DN(s) of the aggregated SuMCredentials instance(s).	
`theServiceProfile`	Models the relationship from a user to a service profile. This attribute contains a list of the DN(s) of the aggregated SuMServiceProfile instance(s).	
`theIdentity`	Models the relationship from a user to an identity. This attribute contains a list of DN(s) of the related SuMIdentity instance(s).	
`theServerCapabilities`	Models the relationship from a SuM IOC object instance (E.g., IMSService, IMSSubscribedService, IMSServiceProfile) to a Server Capabilities object instance.	
`theIWANPar`	Models the relationship between the common packet access service parameters and the I-WAN service parameters. This attribute contains the DN of the related IWANParameters instance.	
`theOptHandover3GPP2Par`	Models the relationship between the EPS service profile when designed for optimal handover to a 3GPP2 access network. This attribute contains the DN of the related OptHandover3GPP2Parameters instance.	
`theNon3GPPAccessPar`	Models the relationship between the EPS service profile and another set of service parameters needed to when access is via a non 3GPP network. This attribute contains the DN of the related Non3GPPAccessParameters instance.	

Attribute Name	Definition	Legal Values
iMSI	23.008 clause 2.1.1.1	
networkAccessMode	23.008 clause 2.1.1.2	
mSISDN	23.008 clause 2.1.2	
multinumberingMSISDNs	23.008 clause 2.1.3	
basicMSISDNIndicator	23.008 clause 2.1.3.1	
mSISDNAlertIndicator	23.008 clause 2.1.3.2	
lMSI	23.008 clause 2.1.8	
mobileStationCategory	23.008 clause 2.2.1	
lMUIdentifier	23.008 clause 2.2.2	
iMEISV	23.008 clause 2.2.3	
subscriptionRestriction	23.008 clause 2.4.10	
rSZIlists	23.008 clause 2.4.11.1	
mSCAreaRestrictedFlag	23.008 clause 2.4.12	
sGSNarearestrictedflag	23.008 clause 2.4.14	
oDBinducedBarringData	23.008 clause 2.4.15.1	
roamingRestrictionDueToUnsupportedFeature	23.008 clause 2.4.15.2	
roamingRestrictedintheSGSNduetounsupportedfeature	23.008 clause 2.4.15.3	
lSAIdentity	23.008 clause 2.4.17.1	
lSAPriority	23.008 clause 2.4.17.2	
lSAPreferentialAccessIndicator	23.008 clause 2.4.17.2A	
lSAActiveModeSupportIndicator	23.008 clause 2.4.17.2B	
lSAOnlyAccessIndicator	23.008 clause 2.4.17.3	
lSAActiveModeIndicator	23.008 clause 2.4.17.4	
vPLMNIdentifier	23.008 clause 2.4.17.5	
accessRestrictionData	23.008 clause 2.4.18	
vLRNumber	23.008 clause 2.4.5	
mSCNumber	23.008 clause 2.4.6	
sGSNNumber	23.008 clause 2.4.8.1	
gGSNNumber	23.008 clause 2.4.8.2	
provisionOfBearerService	23.008 clause 2.5.1	
provisionOfTeleservice	23.008 clause 2.5.2	
bCAllocation	23.008 clause 2.5.3	
transferofSMoption	23.008 clause 2.5.4	
mNRG	23.008 clause 2.7.2	
checkSSIndicator	23.008 clause 2.7.4.4	
mSPurgedForNonGPRSFlag	23.008 clause 2.7.5	
mSpurgedforGPRSflag	23.008 clause 2.7.6	
mNRRMSC	23.008 clause 2.7.7	
subscriberStatus	23.008 clause 2.8.1	
barringOfOutgoingCalls	23.008 clause 2.8.2.1	
barringOfIncomingCalls	23.008 clause 2.8.2.2	
barringOfRoaming	23.008 clause 2.8.2.3	
barringOfPremiumRateCalls	23.008 clause 2.8.2.4	
barringOfSupplementaryServiceManagement	23.008 clause 2.8.2.5	
barringOfRegistrationOfCallForwarding	23.008 clause 2.8.2.6	
barringOfInvocationOfCallTransfer	23.008 clause 2.8.2.7	
barringofPacketOrientedServices	23.008 clause 2.8.2.8	
operatorDeterminedBarringPLMNspecificData	23.008 clause 2.8.3	
notificationToCSEFlagForODB	23.008 clause 2.8.4	
gsmSCFaddresslistForODB	23.008 clause 2.8.5	
messagesWaitingData	23.008 clause 2.10.1	
mobileStationNotReachableFlag	23.008 clause 2.10.2	
memoryCapacityExceededFlag	23.008 clause 2.10.3	
traceReference	23.008 clause 2.11.1	
traceType	23.008 clause 2.11.2	
operationsSystemsIdentity	23.008 clause 2.11.3	
hLRTraceType	23.008 clause 2.11.4	
mAPErrorOnTrace	23.008 clause 2.11.5	
traceActivatedInVLR	23.008 clause 2.11.6	
traceActivatedinSGSN	23.008 clause 2.11.7	
vGCSGroupMembershipList	23.008 clause 2.12.1	
vBSGroupMembershipList	23.008 clause 2.12.2	

broadcastCallInitiationAllowedList	23.008 clause 2.12.2.1	
pDPType	23.008 clause 2.13.1	
gGSNlist	23.008 clause 2.13.11	
qualityofServiceSubscribed	23.008 clause 2.13.12	
pDPAddress	23.008 clause 2.13.2	
pDPContextIdentifier	23.008 clause 2.13.24	
pDPContextChargingCharacteristics	23.008 clause 2.13.25	
accessPointName	23.008 clause 2.13.6	
vPLMNAddressAllowed	23.008 clause 2.13.8	
vPLMNAddressAllowed-EPS	23.008 clause 2.13.40	
originatingCAMELSubscriptionInformationOCSI	23.008 clause 2.14.1.1/3.1	
gPRSCAMELSubscriptionInformationGPRSCSI	23.008 clause 2.14.1.10/2.14.4.4	
dialledServiceCAMELSubscriptionInformationDCSI	23.008 clause 2.14.1.11/3.7	
mobilityManagementforGPRSeventnotificationMGCSI	23.008 clause 2.14.1.12/2.14.4.4	
terminatingCAMELSubscriptionInformationTCSI	23.008 clause 2.14.1.2	
vMSCTerminatingCAMELSubscriptionInformationVTCSI	23.008 clause 2.14.1.2/3.2	
locationInformationSubscriberStateInformation	23.008 clause 2.14.1.3	
uSSDCAMELSubscriptionInformationUCSI	23.008 clause 2.14.1.4	
sSInvocationNotificationSSCSI	23.008 clause 2.14.1.5/3.2	
translationInformationFlagTIFCSI	23.008 clause 2.14.1.6/3.6	
shortMessageServiceCAMELSubscriptionInformationMOSMSCSI	23.008 clause 2.14.1.8/2.14.3.5	
mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI	23.008 clause 2.14.1.8/2.14.4.1	
shortMessageServiceCAMELSubscriptionInformationMTSMSCSI	23.008 clause 2.14.1.9/2.14.3.6	
mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI	23.008 clause 2.14.1.9/2.14.4.2.	
gPRSCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mGCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mOSMSCSISGSNNegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mOSMSCSIVLRNegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mTSMSCSISGSNNegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
mTSMSCSIVLRNegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
oCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
sSCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
vTCSINegotiatedCAMELCapabilityHandling	23.008 clause 2.14.2.1	
SGSNOfferedCAMEL4CSIs	23.008 clause 2.14.2.2A	
vLROfferedCAMEL4CSIs	23.008 clause 2.14.2.2A	
sGSNSupportedCAMELPhases	23.008 clause 2.14.2.2	
vLRSupportedCAMELPhases	23.008 clause 2.14.2.2	
gsmSCFaddressforCSI	23.008 clause 2.14.2.4	
uSSDGeneralCAMELServiceInformationUGCSI	23.008 clause 2.14.2.3	
iSTAlertTimer	23.008 clause 2.15.1	
privacyExceptionList	23.008 clause 2.16.1.1	
gMLCNumbers	23.008 clause 2.16.1.2	
mOLRList	23.008 clause 2.16.1.3	
serviceTypes	23.008 clause 2.16.1.4	
ageIndicator	23.008 clause 2.17.1	
cSAllocationRetentionpriority	23.008 clause 2.18.1	
subscribedChargingCharacteristics	23.008 clause 2.19.1	
iMSPrivateUserIdentity	23.008 clause 3.1.1	
publicUserIdentity	23.008 clause 3.1.2	
barringIndication	23.008 clause 3.1.3	
listofauthorizedvisitednetworkidentifiers	23.008 clause 3.1.4 23.008 clause 3B.1.4	
registrationStatus	23.008 clause 3.2.1	
sCSCFName	23.008 clause 3.2.2	
diameterClientAddressofSCSCF	23.008 clause 3.2.3	
serverCapabilities	23.008 clause 3.4.1	
initialFilterCriteriaList	This attribute is a list which contains multiple items of initialFilterCriteria (Ref. 23.008 clause 3.5.2)	
applicationServerInformation	23.008 clause 3.5.3	

serviceIndicationList	This attribute is a list which contains multiple items of serviceIndication (Ref. 23.008 clause 3.5.4)	
subscribedMediaProfileIdentifier	23.008 clause 3.6.1	
primaryEventChargingFunctionName	23.008 clause 3.7.1 23.008 clause 3B.7.4	
secondaryEventChargingFunctionName	23.008 clause 3.7.2 23.008 clause 3B.7.5	
primaryChargingCollectionFunctionName	23.008 clause 3.7.3	
secondaryChargingCollectionFunctionName	23.008 clause 3.7.4	
gsmSCFaddressforIMCSI	23.008 clause 3.8.4	
iMSSFaddressforIMCSI	23.008 clause 3.8.5	
oIMCSI	23.008 clause 3.8.1	
vTIMCSI	23.008 clause 3.8.2	
dIMCS	23.008 clause 3.8.3	
gAAServiceType	23.008 clause 3A.1	
gAAServiceIdentifier	23.008 clause 3A.2	
gBAUserSecuritySettings	23.008 clause 3A.3	
userSecuritySetting	23.008 clause 3A.4	
userPublicIdentity	23.008 clause 3A.5	
gAAAuthorizationflag	23.008 clause 3A.6	
keyLifetime	23.008 clause 3A.8	
uICCSecuritySetting	23.008 clause 3A.9	
nAFGroupIdentity	23.008 clause 3A.11	
w-APN	23.008 clause 3B.1.3	
3GPPAAAServerName	23.008 clause 3B.1.6	
wLANUERemoteIPaddress	23.008 clause 3B.1.10	
staticWLANUERemoteIPAddressList	23.008 clause 3B.5.1.4	
w-APNBarringTypeList	23.008 clause 3B.5.1.2	
w-APNChargingDataList	23.008 clause 3B.5.1.3	
accessDependenceFlag	23.008 clause 3B.5.2	
i-WLANAccessType	23.008 clause 3B.5.3	
chargingCharacteristics	23.008 clause 3B.7.1.1	
primaryOCSChargingFunctionName	23.008 clause 3B.7.2	
secondaryOCSChargingFunctionName	23.008 clause 3B.7.3	
sS-Code	23.008 clause 2.6 29.002 clause 7.6.4.1	
provisioningState	23.008 clause 2.6 29.002 clause 7.6.4.2	
activationState	23.008 clause 2.6 29.002 clause 7.6.4.2	
registrationState	23.008 clause 2.6 29.002 clause 7.6.4.2	
overrideCategory	23.008 clause 2.6 29.002 clause 7.6.4.4	
cLIRestrictionOption	23.008 clause 2.6 29.002 clause 7.6.4.5	
forwarded-toNumber	23.008 clause 2.6 29.002 clause 7.6.2.22	
forwarded-toSubaddress	23.008 clause 2.6 29.002 clause 7.6.2.23	
noReplyConditionTimer	23.008 clause 2.6 29.002 clause 7.6.4.7	
maximumEntitledPriority	23.008 clause 2.6 29.002 clause 7.6.4.41	
defaultPriority	23.008 clause 2.6 29.002 clause 7.6.4.41	
nbrUser	23.008 clause 2.6 29.002 clause 7.6.4.47	
nbrSB	23.008 clause 2.6 29.002 clause 7.6.4.47	
TraceReference2	23.008 Clause 2.11.9	
TraceDepth	23.008 Clause 2.11.10	
ListofNeTypestoTrace	23.008 Clause 2.11.11	

`TriggeringEvents`	23.008 Clause 2.11.12	
`ListofInterfacestoTrace`	23.008 Clause 2.11.13	
`iCSIndicator`	23.008 Clause 2.20.1	
`iCSIndicator`	23.008 Clause 2.20.1	
`sTNSR`	23.008 Clause 2.21.1	
`3GPPAAAProxyName`	23.008 Clause 3B.1.5	
`w-APNIdentifierList`	23.008 Clause 3B.5.1.1	
`maxNumberAccessesList`	23.008 Clause 3B.5.1.5	
`maxSubscribedBandwidth`	23.008 Clause 3B.6.1	
`subscribed3GPPWLANQoSProfile`	23.008 Clause 3B.6.4	
`userStatus`	23.008 Clause 3B.2.1	
`rATType`	23.008 Clause 2.13.75	
`iPAddressOfTraceCollectionEntity`	23.008 Clause 2.11.14	
`aPNConfigurationProfile`	23.008 Clause 2.13.31	
`pDNAddress`	23.008 Clause 2.13.39	
`permanentUserIdentity`	23.008 Clause 2.13.79	
`visitedNetworkIdentifier`	23.008 Clause 2.13.82	
`mIPSubscriberProfile`	23.008 Clause 2.13.86	
`aPNAMBR`	23.008 Clause 2.13.32	
`contextIdentifier`	23.008 Clause 2.13.38	
`aPNOIReplacement`	23.008 Clause 2.13.29	
`subscribedUEAMBR`	23.008 Clause 2.13.30	
`rFSP`	23.008 Clause 2.13.33	
`pDNGWIdentity`	23.008 Clause 2.13.41	
`ePSPDNConnectionChargingCharacteristics`	23.008 Clause 2.13.71	
`pDNGWAllocationType`	23.008 Clause 2.13.105	
`aPNLevelAPNOIReplacement`	23.008 Clause 2.13.109	
`closedSubscriberGroupInformation`	23.008 Clause 2.4.22	
`roamingRestrictionDueToUnsupportedFeatureMME`	23.008 Clause 2.4.15.3a	
`mSPurgedForEPSFlag`	23.008 Clause 2.7.6A	
`uRRPMME`	23.008 Clause 2.7.9.1	
`mMEName`	23.008 Clause 2.13.26	
`sGSNName`	23.008 Clause 2.13.100	
`iWFNumber`	23.008 Clause 2.4.8.3	

Annex A (informative):
Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
Dec 2003	SA_22	SP-030617	--	--	Submitted to TSG SA#22 for Information	--	1.0.0	
Sep 2004	SA_25	SP-040546	--	--	Submitted to TSG SA#25 for Approval	--	2.0.0	
Dec 2004	SA_26	SP-040830	--	--	Submitted to TSG SA#26 for Approval	--	2.7.0	6.0.0
Mar 2005	SA_27	SP-050024	0001	--	Add Generic Authentication Architecture (GAA) attributes – Align with CN4's 23.008 (Organisation of subscriber data)	F	6.0.0	6.1.0
Mar 2005	SA_27	SP-050024	0002	--	Add Interworking WLAN (I-WLAN) parameters – Align with CN4's 23.008 (Organisation of subscriber data)	F	6.0.0	6.1.0
Mar 2005	SA_27	SP-050024	0003	--	Add Supplementary Service attributes – Align with CN4's 23.008 (Organisation of subscriber data)	F	6.0.0	6.1.0
Jun 2005	SA_28	SP-050269	0004	--	Add Rel-6 trace parameters to SuM - align with CT4's TS 23.008 (Organisation of subscriber data)	F	6.1.0	6.2.0
Mar 2006	SA_31	SP-060092	0005	--	Remove duplicate attributes in the Information Service (IS)	F	6.2.0	6.3.0
Jun 2007	SA_36	SP-070269	0006	--	Add definition of missing attributes	F	6.3.0	6.4.0
Jun 2007	SA_36	SP-070269	0007	--	Add missing inheritance definitions	F	6.3.0	6.4.0
Jun 2007	SA_36	--	--	--	Automatic upgrade to Rel-7 (no CR) at freeze of Rel-7.	--	6.4.0	7.0.0
Sep 2007	SA_37	SP-070607	0009	--	Add missing subscriberStatus attribute to PS object class - Align with CT4's 23.008 (Organisation of subscriber data)	A	7.0.0	7.1.0
Sep 2007	SA_37	SP-070614	0011	--	Update information attribute definitions - Align with CT4 23.008 and 29.002	F	7.1.0	8.0.0
Sep 2007	SA_37	SP-070614	0012	--	Changes to modelling of User	C	7.1.0	8.0.0
Sep 2009	SA_45	SP-090534	0013	--	Correction of SuMSubscriptionProfile and suMSubscriptionProfileId	F	8.0.0	8.1.0
Dec 2009	-	-	-	-	Update to Rel-9 version (MCC)	-	8.1.0	9.0.0
Mar 2010	SA_47	SP-100035	0014	-	Aligning SuM with the agreed methodology for attribute name in release 9	F	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0015	-	The splitting of naming and containment	C	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0016	-	Adding missing IMS related parameters	F	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0017	-	Removing Visibility column in SuM IS	F	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0018	-	Remove misleading text	F	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0019	-	Correcting CS Service Profile parameters	F	9.0.0	9.1.0
Mar 2010	SA_47	SP-100035	0020	-	Introducing new IOCs for common data and user identity parameters	C	9.0.0	9.1.0
Apr 2010	--	--	--	--	Removal of erroneous hyperlinks	-	9.1.0	9.1.1
Jun 2010	SA_48	SP-100263	0011	--	Correcting and extending Packet Access service parameters and modeling	C	9.1.1	9.2.0
Sep 2010	SA_49	SP-100494	0022	--	SuM IS - removing some SuM IOCs from Itf-N	C	9.2.0	10.0.0
Dec 2010	SA_50	SP-100755	0025	--	Correcting errors from release 9.X.0 and undoing error introduced by 32172_CR0022_(Rel-10)_S5-102471	F	10.0.0	10.1.0
Mar 2011	SA_51	SP-110104	0026	1	Improve Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP) access service modelling	C	10.1.0	10.2.0
2012-09	-	-				Update to Rel-11 version (MCC)	10.2.0	**11.0.0**
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