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*Technical Specification*

**Digital cellular telecommunications system (Phase 2+);**
**Universal Mobile Telecommunications System (UMTS);**
**Telecommunication management;**
**Subscription Management (SuM)**
**Network Resource Model (NRM)**
**Integration Reference Point (IRP):**
**Information Service (IS)**
**(3GPP TS 32.172 version 6.3.0 Release 6)**

**GLOBAL SYSTEM FOR**
**MOBILE COMMUNICATIONS**

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# Foreword

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# Contents

# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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# 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 32.175:      "Subscription Management (SuM) Network Resource Model (NRM) Integration Reference Point (IRP): eXtensible Markup Language (XML) definition".

# 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".

# 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].

## 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, `ManagedElement` | `ManagedElement` |

## 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).
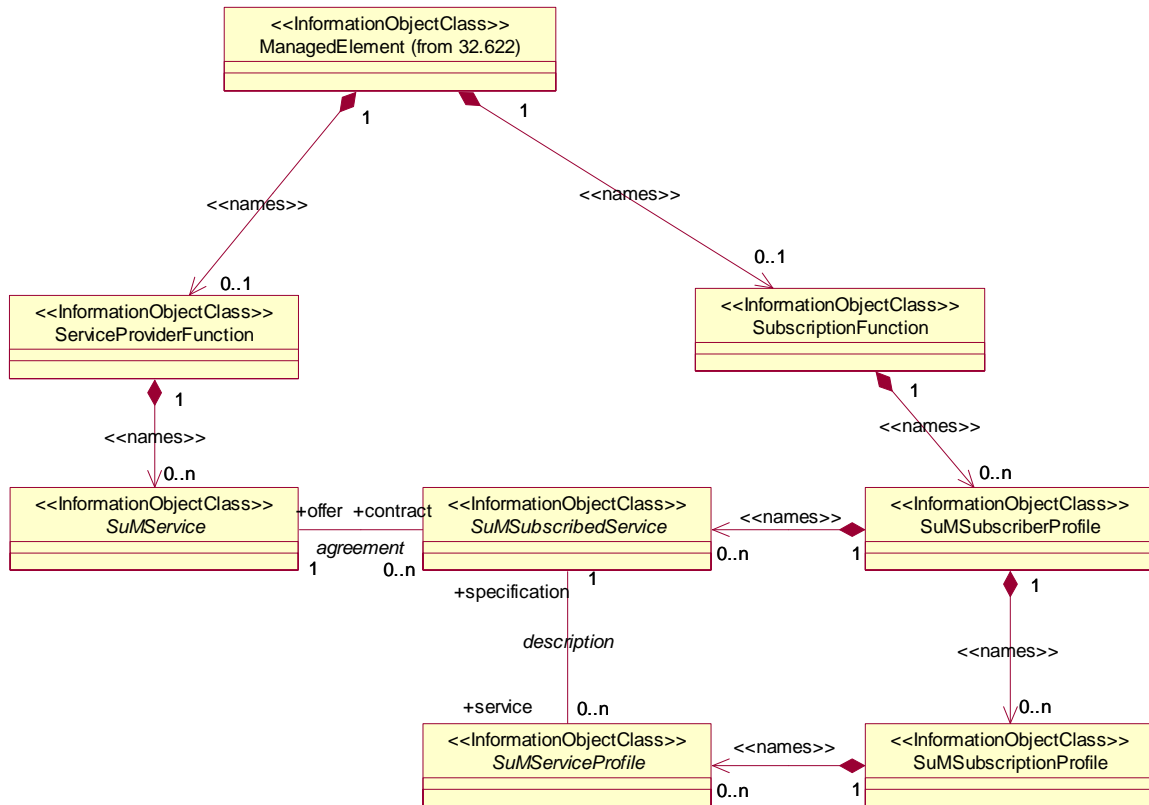
NOTE: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

**Figure 1.a: SuM NRM Containment/Naming and Association diagram**
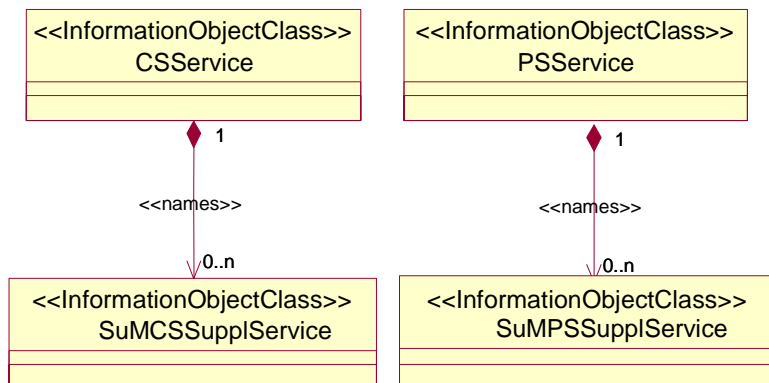


**Figure 1.b: SuM Supplementary Service NRM Containment/Naming and Association diagram 1**
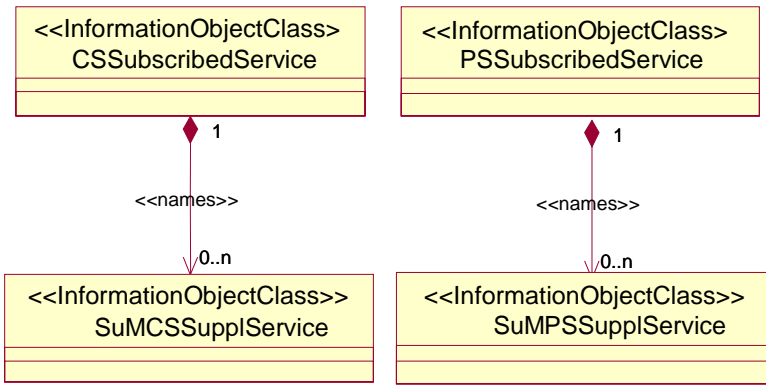
**Figure 1.c: SuM Supplementary Service NRM Containment/Naming and Association diagram 2**
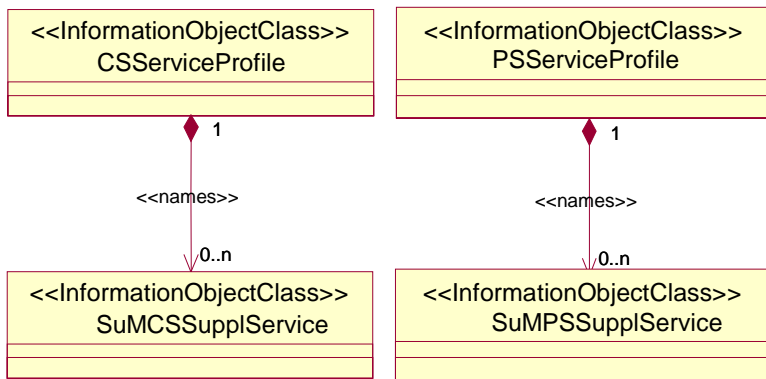


**Figure 1.d: SuM Supplementary Service NRM Containment/Naming and Association diagram 3**

## 6.2.2 Inheritance
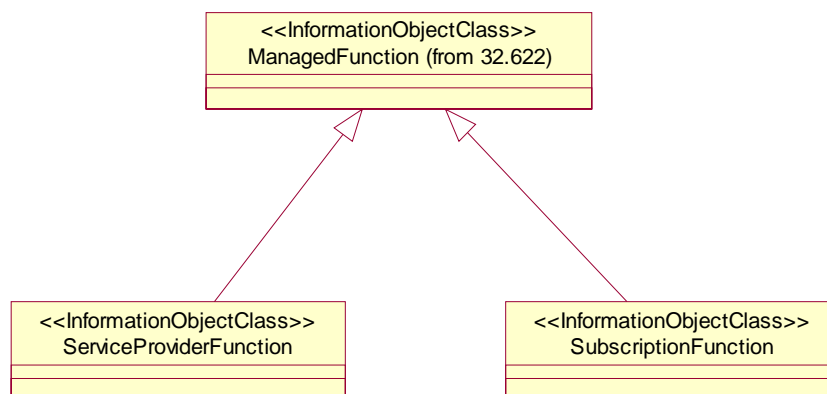


**Figure 2a: SuM NRM Inheritance Hierarchy 1**
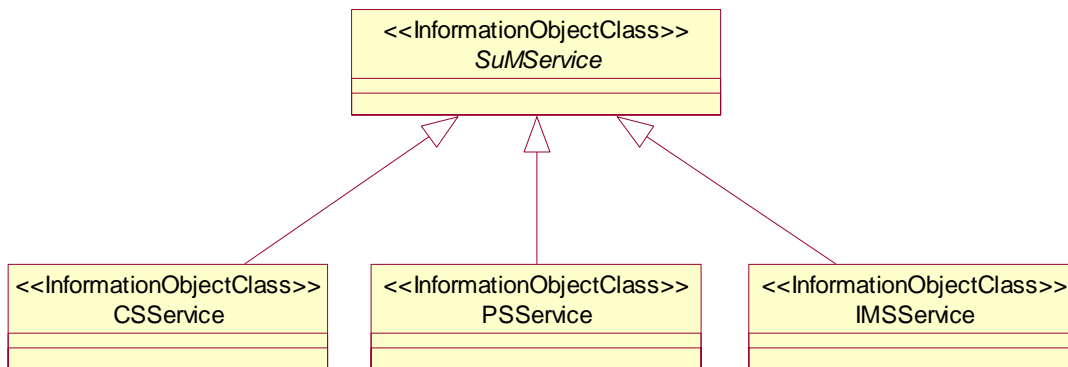
**Figure 2b: SuM NRM Inheritance Hierarchy 2**
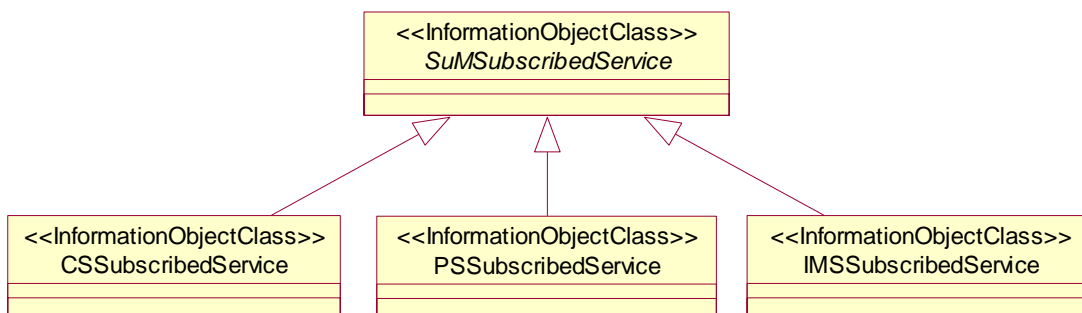


**Figure 2c: SuM NRM Inheritance Hierarchy 3**
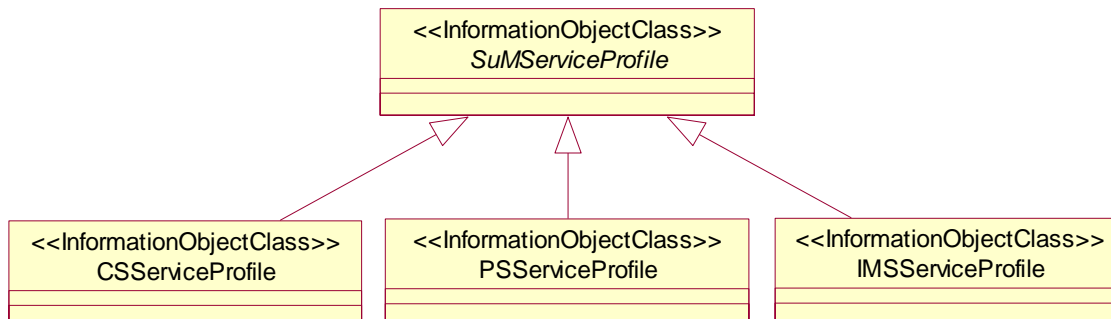


**Figure 2d: SuM NRM Inheritance Hierarchy 4**

## 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| agreement-contract | + | M | M | O |

# 6.3.2 CSService

## 6.3.2.1 Definition

In this management context:

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

b) 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| cSServiceId | + | M | M | - |
| 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 | + | M | M | M |
| lMUIdentifier | + | M | M | M |
| subscriberStatus | + | M | M | M |
| gsmSCFaddresslistForODB | + | M | M | M |
| provisionOfBearerService | + | M | M | M |
| provisionOfTeleservice | + | M | M | M |
| bCAllocation | + | O | 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 |

### 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   PSService

### 6.3.3.1   Definition

In this management context:

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

   b)  This class contains the valid parameters that define the PS service from subscription point of view.

### 6.3.3.2 Attributes

**Attributes of `PSService`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|:---:|:---:|:---:|:---:|
| pSServiceId | + | M | M | - |
| 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 |
| gGSNNumber | + | O | M | M |
| provisionofTeleservice | + | O | M | M |
| transferofSMoption | + | 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 |
| w-APN | + | O | M | M |
| listofauthorizedvisitednetworkidentifiers | + | O | M | M |
| wLANUERemoteIPaddress | + | O | M | M |
| wLANAccess | + | O | M | M |
| wLANTunnelling | + | O | M | M |
| wLANDirectIPAccess | + | O | M | M |
| wAPNAuthorised | + | O | M | M |
| w-APNBarringType | + | O | M | M |
| w-APNChargingData | + | O | M | M |
| wLANUERemoteIPAddress | + | O | M | M |
| accessIndependenceFlag | + | O | M | M |
| i-WLANAccessType | + | O | M | M |
| chargingData | + | O | M | M |
| chargingCharacteristics | + | O | M | M |
| primaryOCSChargingFunctionName | + | O | M | M |
| secondaryOCSChargingFunctionName | + | O | M | M |
| primaryChargingCollectionFunctionName | + | O | M | M |
| secondaryChargingCollectionFunctionName | + | 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

In this management context:

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

b) 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| iMSServiceId | + | M | M | - |
| barringIndication | + | M | M | M |
| listofauthorizedvisitednetworkidentifiers | + | M | M | M |
| registrationStatus | + | M | M | M |
| sCSCFName | + | M | M | M |
| serverCapabilities | + | O | M | M |
| subscribedMediaProfileIdentifier | + | O | M | M |
| initialFilterCriteria | + | O | M | M |
| applicationServerInformation | + | O | M | M |
| serviceIndication | + | M | M | 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 |
| uICCSecuritySetting | + | 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| description-service | + | M | M | O |
| agreement-offer | + | M | M | O |

## 6.3.6    `CSSubscribedService`

### 6.3.6.1    Definition

In this management context:

a) 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.

b) 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| cSSubscribedServiceId | + | M | M | - |
| 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 | + | M | M | M |
| lMUIdentifier | + | M | M | M |
| subscriberStatus | + | M | 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 |

### 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 `PSSubscribedService`

### 6.3.7.1 Definition

In this management context:

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

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

### 6.3.7.2 Attributes

**Attributes of `PSSubscribedService`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| pSSubscribedServiceId | + | M | M | - |
| 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 |
| gGSNNumber | + | O | M | M |
| provisionofTeleservice | + | O | M | M |
| transferofSMoption | + | 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 |
| w-APN | + | O | M | M |
| listofauthorizedvisitednetworkidentifiers | + | O | M | M |
| wLANUERemoteIPaddress | + | O | M | M |
| wLANAccess | + | O | M | M |
| wLANTunnelling | + | O | M | M |
| wLANDirectIPAccess | + | O | M | M |
| wAPNAuthorised | + | O | M | M |
| w-APNBarringType | + | O | M | M |
| w-APNChargingData | + | O | M | M |
| wLANUERemoteIPAddress | + | O | M | M |
| accessIndependenceFlag | + | O | M | M |
| i-WLANAccessType | + | O | M | M |
| chargingData | + | O | M | M |
| chargingCharacteristics | + | O | M | M |
| primaryOCSChargingFunctionName | + | O | M | M |
| secondaryOCSChargingFunctionName | + | O | M | M |
| primaryChargingCollectionFunctionName | + | O | M | M |
| secondaryChargingCollectionFunctionName | + | 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

In this management context:

a) 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 PS services.

b) 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| iMSSubscribedServiceId | + | M | M | - |
| barringIndication | + | M | M | M |
| listofauthorizedvisitednetworkidentifiers | + | M | M | M |
| registrationStatus | + | M | M | M |
| sCSCFName | + | M | M | M |
| serverCapabilities | + | O | M | M |
| subscribedMediaProfileIdentifier | + | O | M | M |
| initialFilterCriteria | + | O | M | M |
| applicationServerInformation | + | O | M | M |
| serviceIndication | + | M | M | 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 |
| uICCSecuritySetting | + | 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

In this management context:

a) This class represents the Subscriber Profile.

b) This class contains the Subscribed Services for a subscriber

c) This class contains the users for a subscriber.

## 6.3.9.2 Attributes

**Attributes of `SuMSubscriberProfile`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| suMSubscriberProfileId | + | M | M | - |
| suMSubscriberProfileInfo | + | M | M | O |

# 6.3.10 SuMSubscriptionProfile

## 6.3.10.1 Definition

In this management context:

a) This class represents user's subscription profile of the services contracted by a subscriber.

b) This class contains Service Profiles for the services contracted by a subscriber and assigned to a user.

## 6.3.10.2 Attributes

**Attributes of `SuMSubscriptionProfile`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| suMSubscriptionProfileId | + | M | M | - |
| iMSI | + | M | M | M |
| mSISDN | + | M | M | M |
| multinumberingMSISDNs | + | M | M | M |
| iMEISV | + | O | M | - |
| privateUserIdentity | + | M | M | M |
| publicIdentity | + | M | M | M |

## 6.3.10.3 Attribute constraints

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

# 6.3.11 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.

Attributes

**Attributes of `SuMServiceProfile`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| description-specification | + | M | M | O |

## 6.3.12 CSServiceProfile

### 6.3.12.1 Definition

In this management context:

  a) 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 | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| cSServiceProfileId | + | M | M | O |
| networkAccessMode | + | M | M | M |
| basicMSISDNIndicator | + | O | M | M |
| mSISDNAlertIndicator | + | O | M | M |
| vLRNumber | + | M | M | - |
| mSCNumber | + | M | M | - |
| subscriptionRestriction | + | O | M | M |
| rSZIlists | + | O | M | M |
| mSCAreaRestrictedFlag | + | M | M | - |
| oDBinducedBarringData | + | O | M | - |
| roamingRestrictionDueToUnsupportedFeature | + | M | M | - |
| lSAIdentity | + | O | M | M |
| lSAPriority | + | O | M | M |
| lSAPreferentialAccess Indicator | + | 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 |
| ageIndicator | + | O | M | - |
| lMSI | + | M | M | - |
| mobileStationCategory | + | M | M | M |
| lMUIdentifier | + | M | M | M |
| mNRR | + | M | M | - |
| subscriberStatus | + | M | M | M |
| notificationToCSEFlagForODB | + | M | M | - |
| gsmSCFaddresslistForODB | + | M | M | M |
| messagesWaitingData | + | M | M | - |
| mobileStationNotReachableFlag | + | M | 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 | - |
| 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 |
| oCSINegotiatedCAMELCapabilityHandling | + | O | M | - |
| sSCSINegotiatedCAMELCapabilityHandling | + | O | M | - |
| vTCSINegotiatedCAMELCapabilityHandling | + | O | M | - |
| shortMessageServiceCAMELSubscriptionInformationMOSMSCSI | + | O | M | M |
| shortMessageServiceCAMELSubscriptionInformationMTSMSCSI | + | O | M | M |
| 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 |
| TraceReference2 | + | O | M | - |
| TraceDepth | + | O | M | - |
| ListofNeTypestoTrace | + | O | M | - |
| TriggeringEvents | + | O | M | - |
| ListofInterfacestoTrace | + | O | M | - |

### 6.3.12.3    Attribute constraints

The optional attributes:

```
accessRestrictionData
ageIndicator
barringOfIncomingCalls
barringOfInvocationOfCallTransfer
barringOfOutgoingCalls
barringOfPremiumRateCalls
barringOfRegistrationOfCallForwarding
barringOfRoaming
barringOfSupplementaryServiceManagement
basicMSISDNIndicator
bCAllocation
bCAllocation
broadcastCallInitiationAllowedList
cSAllocationRetentionpriority
```

```
        dialledServiceCAMELSubscriptionInformationDCSI
        gMLCNumbers
        gsmSCFaddressforCSI
        iSTAlertTimer
        locationInformationSubscriberStateInformation
        lSAActiveModeIndicator
        lSAActiveModeSupportIndicator
        lSAIdentity
        lSAOnlyAccessIndicator
        lSAPreferentialAccess Indicator
        lSAPriority
        mCSINegotiatedCAMELCapabilityHandling
        mOLRList
        mOSMSCSIVLRNegotiatedCAMELCapabilityHandling
        mSISDNAlertIndicator
        mTSMSCSIVLRNegotiatedCAMELCapabilityHandling
        oCSINegotiatedCAMELCapabilityHandling
        oDBinducedBarringData
        operatorDeterminedBarringPLMNspecificData
        originatingCAMELSubscriptionInformationOCSI
        privacyExceptionList
        rSZIlists
        serviceTypes
        shortMessageServiceCAMELSubscriptionInformationMOSMSCSI
        shortMessageServiceCAMELSubscriptionInformationMTSMSCSI
        sSCSINegotiatedCAMELCapabilityHandling
        sSInvocationNotificationSSCSI
        subscriptionRestriction
        terminatingCAMELSubscriptionInformationTCSI
        translationInformationFlagTIFCSI
        uSSDCAMELSubscriptionInformationUCSI
        uSSDGeneralCAMELServiceInformationUGCSI
        vBSGroupMembershipList
        vGCSGroupMembershipList
        vLROfferedCAMEL4CSIs
        vLRSupportedCAMELPhases
        vMSCTerminatingCAMELSubscriptionInformationVTCSI
        vPLMNIdentifier
        vTCSINegotiatedCAMELCapabilityHandling
```

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

## 6.3.13    `PSServiceProfile`

### 6.3.13.1    Definition

In this management context:

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

### 6.3.13.2 Attributes

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| pSSServiceProfileId | + | M | M | O |
| networkAccessMode | + | M | M | M |
| basicMSISDNIndicator | + | O | M | M |
| mSISDNAlertIndicator | + | O | M | M |
| vLRNumber | + | M | M | - |
| mSCNumber | + | M | M | - |
| subscriptionRestriction | + | O | M | M |
| rSZIlists | + | 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 |
| accessRestrictionData | + | O | M | M |
| privacyExceptionList | + | O | M | M |
| gMLCNumbers | + | O | M | M |
| mOLRList | + | O | M | M |
| serviceTypes | + | O | M | M |
| ageIndicator | + | O | M | - |
| sGSNNumber | + | M | M | - |
| gGSNNumber | + | O | M | M |
| sGSNarearestrictedflag | + | M | M | - |
| roamingRestrictedintheSGSNduetounsupportedfeature | + | M | M | - |
| mNRG | + | M | M | - |
| traceActivatedinSGSN | + | O | M | - |
| provisionofTeleservice | + | O | M | M |
| transferofSMoption | + | M | M | M |
| mSpurgedforGPRSflag | + | M | M | - |
| barringofPacketOrientedServices | + | O | M | M |
| pDPType | + | O | M | M |
| pDPAddress | + | O | M | M |
| accessPointName | + | O | M | M |
| vPLMNAddressAllowed | + | 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 |
| subscribedChargingCharacteristics | + | O | M | M |
| w-APN | + | O | M | M |
| listofauthorizedvisitednetworkidentifiers | + | O | M | M |
| 3GPPAAAServerName | + | O | M | - |
| wLANUERemoteIPaddress | + | O | M | M |
| wLANAccess | + | O | M | M |
| wLANTunnelling | + | O | M | M |
| wLANDirectIPAccess | + | O | M | M |

| | | | | |
|---|---|---|---|---|
| wAPNAuthorised | + | O | M | M |
| w-APNBarringType | + | O | M | M |
| w-APNChargingData | + | O | M | M |
| wLANUERemoteIPAddress | + | O | M | M |
| accessIndependenceFlag | + | O | M | M |
| i-WLANAccessType | + | O | M | M |
| chargingData | + | O | M | M |
| chargingCharacteristics | + | O | M | M |
| primaryOCSChargingFunctionName | + | O | M | M |
| secondaryOCSChargingFunctionName | + | O | M | M |
| primaryChargingCollectionFunctionName | + | O | M | M |
| secondaryChargingCollectionFunctionName | + | O | M | M |
| TraceReference2 | + | O | M | - |
| TraceDepth | + | O | M | - |
| ListofNeTypestoTrace | + | O | M | - |
| TriggeringEvents | + | O | M | - |
| ListofInterfacestoTrace | + | O | M | - |

### 6.3.13.3 Attribute constraints

The optional attributes:

> 3GPPAAAServerName
> accessIndependenceFlag
> accessPointName
> accessRestrictionData
> ageIndicator
> barringofPacketOrientedServices
> basicMSISDNIndicator
> chargingCharacteristics
> chargingData
> gGSNNumber
> gMLCNumbers
> gPRSCAMELSubscriptionInformationGPRSCSI
> gPRSCSINegotiatedCAMELCapabilityHandling
> gsmSCFaddressforCSI
> i-WLANAccessType
> listofauthorizedvisitednetworkidentifiers
> lSAActiveModeIndicator
> lSAActiveModeSupportIndicator
> lSAIdentity
> lSAOnlyAccessIndicator
> lSAPreferentialAccessIndicator
> lSAPriority
> mGCSINegotiatedCAMELCapabilityHandling
> mobilityManagementforGPRSeventnotificationMGCSI
> mOLRList
> mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI
> mOSMSCSISGSNNegotiatedCAMELCapabilityHandling
> mSISDNAlertIndicator
> mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI
> mTSMSCSISGSNNegotiatedCAMELCapabilityHandling
> oDBinducedBarringData
> pDPAddress
> pDPContextChargingCharacteristics
> pDPContextIdentifier
> pDPType
> primaryChargingCollectionFunctionName
> primaryOCSChargingFunctionName
> privacyExceptionList
> provisionofTeleservice
> qualityofServiceSubscribed

```
rSZIlists
secondaryChargingCollectionFunctionName
secondaryOCSChargingFunctionName
serviceTypes
sGSNOfferedCAMEL4CSIs
sGSNSupportedCAMELPhases
subscribedChargingCharacteristics
subscriptionRestriction
vPLMNAddressAllowed
vPLMNIdentifier
w-APN
wAPNAuthorised
w-APNBarringType
w-APNChargingData
wLANAccess
wLANDirectIPAccess
wLANTunnelling
wLANUERemoteIPaddress
wLANUERemoteIPAddress
```

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

In this management context:

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

### 6.3.14.2 Attributes

**Attributes of `IMSServiceProfile`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| iMSServiceProfileId | + | M | M | O |
| barringIndication | + | M | M | M |
| listofauthorizedvisitednetworkidentifiers | + | M | M | M |
| registrationStatus | + | M | M | M |
| sCSCFName | + | M | M | M |
| diameterClientAddressofSCSCF | + | M | M | - |
| serverCapabilities | + | O | M | M |
| subscribedMediaProfileIdentifier | + | O | M | M |
| initialFilterCriteria | + | O | M | M |
| applicationServerInformation | + | O | M | M |
| serviceIndication | + | M | M | 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 |
| uICCSecuritySetting | + | O | M | M |
| nAFGroupIdentity | + | O | M | M |

### 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 ServiceProviderFunction

### 6.3.15.1 Definition

In this management context:

a) This class represents service provider functionality.

b) All managed elements related with providing services have this functionality.

c) It carries references to all services to be provided.

d) It inherits from ManagedFunction (defined in 32.622 [6]).

### 6.3.15.2 Attributes

**Attributes of `ServiceProviderFunction`**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| serviceProviderFunctionId | + | M | M | - |
| userLabel | + | M | M | M |

## 6.3.16    SubscriptionFunction

### 6.3.16.1    Definition

In this management context:

a)  This class represents subscription functionality.

b)  All managed elements related with the subscription of services have this functionality.

c)  It carries references to all subscription profile data.

d)  It carries references to all Subscriber data

e)  It inherits from ManagedFunction (defined in 32.622 [6]).

### 6.3.16.2    Attributes

**Attributes of SubscriptionFunction**

| Attribute name | Visibility | Support Qualifier | Read Qualifier | Write Qualifier |
|---|---|---|---|---|
| subscriptionFunctionId | + | M | M | - |
| userLabel | + | M | M | M |

## 6.3.17    SuMCSSupplService

### 6.3.17.1    Definition

In this management context:

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

b)  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 | Visibility | 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 `SuMPSSupplService`

#### 6.3.18.1 Definition

In this management context:

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

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

#### 6.3.18.2 Attributes

**Attributes of `SuMPSSupplService`**

| Attribute name | Visibility | 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]).

## 6.4 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 |
|---|---|
| contract | The `SuMSubscribedService` represents an agreed contract for a `SuMService`. |
| offer | The `SuMService` represents an offer of an agreement to a `SuMSubscribedService`. |

#### 6.4.1.3 Constraints

-

## 6.4.2 Description

### 6.4.2.1 Definition

This represents the content relationship between `SuMSubscriptionProfile` and `SuMServiceProfile`.

### 6.4.2.2 Roles

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

### 6.4.2.3 Constraints

-

## 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 |
|---|---|---|
| iMSServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the IMSService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| cSServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the CSService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| pSServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the PSService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| cSServiceProfileId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the CSServiceProfile object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| pSServiceProfileId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the PSServiceProfile object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| iMSServiceProfileId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the `IMSServiceProfile` object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| cSSubscribedServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the CSSubscribedService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| pSSubscribedServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the PSSubscribedService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| iMSSubscribedServiceId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the IMSSubscribedService object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |
| suMSubscriptionProfileId | An attribute whose 'name+value' can be used as an RDN when naming an instance of the SuMSubscriptionProfile object class. This RDN uniquely identifies the object instance within the scope of its containing (parent) object instance. | |

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|---|---|---|
| userLabel | A user-friendly (and user assigned) name of the associated object. Inherited from `ManagedFunction`. | |
| agreement-contract | Models the agreement relationship to a subscribed service. This attribute contains a list of the DN(s) of the related `SuMSubscribedService` instance(s). | |
| agreement-offer | Models the agreement relationship to a service. An attribute whose 'name+value' can be used as DN when referencing an instance of the `SuMService` object class. | |
| description-service | Models the description relationship to a service profile. This attribute contains a list of the DN(s) of the related `SuMServiceProfile` instance(s). | |
| description-specification | 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. | |

| 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 | |
| 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 | |

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|---|---|---|
| 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 | |
| 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 2.14.2.3 | |
| vLRSupportedCAMELPhases | 23.008 clause 2.14.2.3 | |
| gsmSCFaddressforCSI | 23.008 clause 2.14.2.4 | |
| uSSDGeneralCAMELServiceInformationUGCSI | 23.008 clause 2.14.2.4 | |
| 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 | |
| privateUserIdentity | 23.008 clause 3.1.1 | |

| publicIdentity | 23.008 clause 3.1.2 | |
|---|---|---|
| barringIndication | 23.008 clause 3.1.3 | |
| listofauthorizedvisitednetworkidentifiers | 23.008 clause 3.1.4 | |
| 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 | |
| subscribedMediaProfileIdentifier | 23.008 clause 3.5.1 | |
| initialFilterCriteria | 23.008 clause 3.5.2 | |
| applicationServerInformation | 23.008 clause 3.5.3 | |
| serviceIndication | 23.008 clause 3.5.4 | |
| primaryEventChargingFunctionName | 23.008 clause 3.7.1 | |
| secondaryEventChargingFunctionName | 23.008 clause 3.7.2 | |
| 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 | |
| listofauthorizedvisitednetworkidentifiers | 23.008 clause 3B.1.4 | |
| 3GPPAAAServerName | 23.008 clause 3B.1.6 | |
| wLANUERemoteIPaddress | 23.008 clause 3B.1.10 | |
| wLANAccess | 23.008 clause 3B.5.1 | |
| wLANTunnelling | 23.008 clause 3B.5.2 | |
| wLANDirectIPAccess | 23.008 clause 3B.5.3 | |
| wAPNAuthorised | 23.008 clause 3B.5.4 | |
| w-APNBarringType | 23.008 clause 3B.5.4.2 | |
| w-APNChargingData | 23.008 clause 3B.5.4.3 | |
| wLANUERemoteIPAddress | 23.008 clause 3B.5.4.4 | |
| accessIndependenceFlag | 23.008 clause 3B.5.5 | |
| i-WLANAccessType | 23.008 clause 3B.5.6 | |
| chargingData | 23.008 clause 3B.7.1 | |
| chargingCharacteristics | 23.008 clause 3B.7.1.1 | |
| primaryOCSChargingFunctionName | 23.008 clause 3B.7.2 | |
| secondaryOCSChargingFunctionName | 23.008 clause 3B.7.3 | |
| primaryChargingCollectionFunctionName | 23.008 clause 3B.7.4 | |
| secondaryChargingCollectionFunctionName | 23.008 clause 3B.7.5 | |
| sS-Code | 23.008 clause 2.6<br>29.002 clause 7.6.4.1 | |
| provisioningState | 23.008 clause 2.6<br>29.002 clause 7.6.4.2 | |
| activationState | 23.008 clause 2.6<br>29.002 clause 7.6.4.2 | |
| registrationState | 23.008 clause 2.6<br>29.002 clause 7.6.4.2 | |
| overrideCategory | 23.008 clause 2.6<br>29.002 clause 7.6.4.4 | |
| cLIRestrictionOption | 23.008 clause 2.6<br>29.002 clause 7.6.4.5 | |
| forwarded-toNumber | 23.008 clause 2.6<br>29.002 clause 7.6.4.6 | |
| forwarded-toSubaddress | 23.008 clause 2.6<br>29.002 clause 7.6.4.6 | |
| noReplyConditionTimer | 23.008 clause 2.6<br>29.002 clause 7.6.4.7 | |

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|---|---|---|
| `maximumEntitledPriority` | 23.008 clause 2.6<br>29.002 clause 7.6.4.41 | |
| `defaultPriority` | 23.008 clause 2.6<br>29.002 clause 7.6.4.41 | |
| `nbrUser` | 23.008 clause 2.6<br>29.002 clause 7.6.4.47 | |
| `nbrSB` | 23.008 clause 2.6<br>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 | |

# 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 |
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# History

| Document history | | |
|---|---|---|
| V6.0.0 | December 2004 | Publication |
| V6.1.0 | March 2005 | Publication |
| V6.2.0 | June 2005 | Publication |
| V6.3.0 | March 2006 | Publication |
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