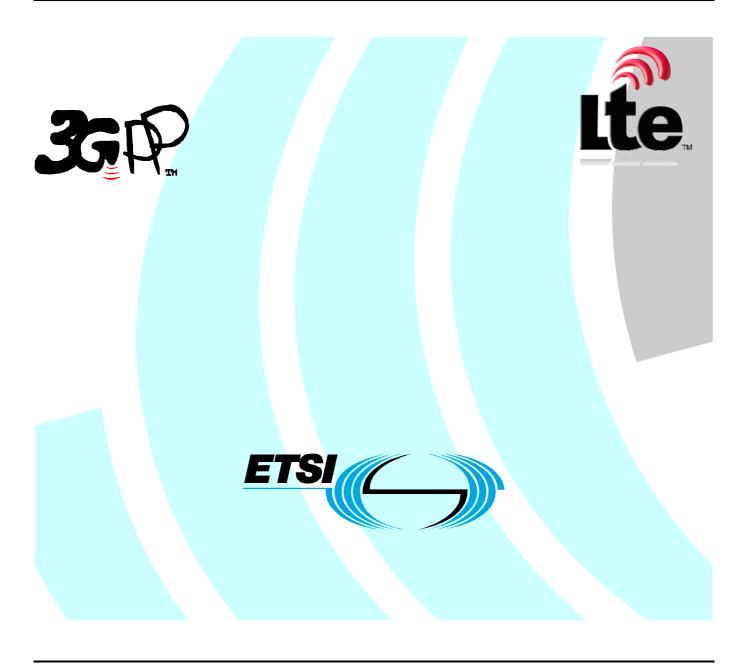# ETSI TS 132 175 V9.0.0 (2010-01)

Technical Specification

Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Subscription Management (SuM) Network Resource Model (NRM)
Integration Reference Point (IRP):
eXtensible Markup Language (XML) definition
(3GPP TS 32.175 version 9.0.0 Release 9)

Reference
RTS/TSGS-0532175v900

Keywords
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Introduction

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".

Subscription Management (SuM) is a feature that permits Service Providers, Value Added Service Providers and Mobile Operators to provision services for a specific subscriber. The feature is necessary to allow Service Providers and Operators to provision, control, monitor, and bill the configuration of services that they offer to their subscribers. SuM focuses on the OAM processes to manage subscription information. The overall SuM requirements and architecture are detailed in 3GPP TS 32.140 [2] and 3GPP TS 32.141 [3].

The Itf-N interface for Subscription Management 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 32.150 [1]. For SuM, a number of IRPs (and the Name Convention) are defined herein, used by this as well as other technical specifications for telecom management produced by 3GPP.

1 Scope

The purpose of this *Subscription Management (SuM) Network Resource Model IRP XML definition* is to define the mapping of the IRP information model (see TS 32.172 [5]) to the protocol specific details necessary for implementation of this IRP in an XML environment.

This specification is related to 3GPP TS 32.172 V9.0.X.

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 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".

[2]   3GPP TS 32.140: "Telecommunication management; Subscription Management (SuM) requirements".

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

[4]   3GPP TS 32.171: "Telecommunication management; Subscription Management (SuM) resources Integration Reference Point (IRP); Requirements".

[5]   3GPP TS 32.172: "Telecommunication management; Subscription Management Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)".

[6]   3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[7]   3GPP TS 32.102: "Telecommunication management; Architecture".

[8]   3GPP TS 32.615: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): eXtensible Markup Language (XML) file format definition".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions in 3GPP TS 32.101 [6], TS 32.102 [7], TS 32.140 [2], TS 32.141 [3], TS 32.171 [4] and TS 32.172 [5] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations in 3GPP TS 32.101 [6], TS 32.102 [7], TS 32.140 [2], TS 32.141 [3], TS 32.171 [4] and TS 32.172 [5] apply.

4 Architectural features

The overall architectural feature of Subscription Management (SuM) resources is specified in 3GPP TS 32.172 [5].

5 Structure and content of configuration data XML files

The overall description of the file format of configuration data XML files is provided by 3GPP TS 32.615 [8].

Annex A of the present document defines the NRM-specific XML schema `sumNrm.xsd` for the Subscription Management IRP NRM defined in 3GPP TS 32.172 [5].

XML schema `sumNrm.xsd` explicitly declares NRM-specific XML element types for the related NRM.

The definition of those NRM-specific XML element types complies with the generic mapping rules defined in 3GPP TS 32.615 [8].

Annex A (normative):
Subscription Management NRM-specific XML schema (file name "`sumNrm.xsd`")

The following XML schema `sumNrm.xsd` is the NRM-specific schema for the Subscription Management Network Resources IRP NRM defined in 3GPP TS 32.172 [5]:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.175 SuM Network Resources IRP
  SuM NRM-specific XML schema
  sumNrm.xsd
-->

<schema
  targetNamespace=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.175#sumNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:sn=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.175#sumNrm"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.625#genericNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.625#genericNrm"
  />

  <!-- SuM Network Resources IRP NRM class associated XML elements -->

  <element
    name="ServiceProviderFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="sn:SuMService"/>
            </choice>
```

```
          </sequence>
        </extension>
      </complexContent>
    </complexType>
</element>

<element
  name="SubscriptionFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="sn:SuMSubscriberProfile"/>
            <element ref="sn:SuMUser"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="SuMSubscriberProfile">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="suMSubscriberProfileInfo" minOccurs="0"/>
                <element name="userSubscriberRelationTheUser" type="xn:dnList" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="sn:SuMSubscribedService"/>
            <element ref="sn:MobileUserData"/>
            <element ref="sn:SuMSubscriberProfileOptionallyContainedNrmClass"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
```

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```
        </element>


    <element name="MobileUserData">
      <complexType>
        <complexContent>
          <extension base="xn:NrmClass">
            <sequence>
              <element name="attributes" minOccurs="0">
                <complexType>
                  <all>
                    <element name="relatedServiceProfileTheServiceProfile" type="xn:dnList" minOccurs="0"/>
                    <element name="iMSI" type="string" minOccurs="0"/>
                    <element name="mSISDN" type="string" minOccurs="0"/>
                    <element name="multinumberingMSISDNs" type="sn:multinumberingMSISDNList" minOccurs="0"/>
                    <element name="iMEISV" type="string" minOccurs="0"/>
                  </all>
                </complexType>
              </element>
            </sequence>
          </extension>
        </complexContent>
      </complexType>
    </element>


    <element name="SuMUser">
      <complexType>
        <complexContent>
          <extension base="xn:NrmClass">
            <sequence>
              <element name="attributes" minOccurs="0">
                <complexType>
                  <all>
                    <element name="relatedMobileUserDataTheMobileUserData" type="xn:dnList" minOccurs="0"/>
                    <element name="userSubscriberRelationTheSubscriber" type="xn:dnList" minOccurs="0"/>
                  </all>
                </complexType>
              </element>
              <choice minOccurs="0" maxOccurs="unbounded">
                <element ref="sn:SuMServiceProfile"/>
                <element ref="sn:SuMCredentials"/>
                <element ref="sn:SuMUserOptionallyContainedNrmClass"/>
              </choice>
            </sequence>
          </extension>
        </complexContent>
      </complexType>
    </element>


    <element name="SuMCredentials">
      <complexType>
        <complexContent>
          <extension base="xn:NrmClass">
            <sequence>
```

```
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="relatedIMSPublicIdThePublicId" type="xn:dnList" minOccurs="0"/>
                <element name="relatedIMSServiceProfileTheServiceProfile" type="xn:dnList" minOccurs="0"/>
                <element name="iMSPrivateUserIdentity" type="string" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="sn:SuMCredentialsOptionallyContainedNrmClass"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>


<element name="SuMService" type="xn:NrmClass" abstract="true"/>

<element
  name="CSService"
  substitutionGroup="sn:SuMService"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="agreementContract" minOccurs="0"/>
                <element name="networkAccessMode" minOccurs="0"/>
                <element name="basicMSISDNIndicator" minOccurs="0"/>
                <element name="mSISDNAlertIndicator" minOccurs="0"/>
                <element name="subscriptionRestriction" minOccurs="0"/>
                <element name="rSZIlists" minOccurs="0"/>
                <element name="lSAIdentity" minOccurs="0"/>
                <element name="lSAPriority" minOccurs="0"/>
                <element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
                <element name="lSAOnlyAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeIndicator" minOccurs="0"/>
                <element name="vPLMNIdentifier" minOccurs="0"/>
                <element name="accessRestrictionData" minOccurs="0"/>
                <element name="privacyExceptionList" minOccurs="0"/>
                <element name="gMLCNumbers" minOccurs="0"/>
                <element name="mOLRList" minOccurs="0"/>
                <element name="serviceTypes" minOccurs="0"/>
                <element name="mobileStationCategory" minOccurs="0"/>
                <element name="lMUIdentifier" minOccurs="0"/>
                <element name="subscriberStatus" minOccurs="0"/>
                <element name="gsmSCFaddresslistForODB" minOccurs="0"/>
```

```xml
<element name="provisionOfBearerService" minOccurs="0"/>
<element name="provisionOfTeleservice" minOccurs="0"/>
<element name="bCAllocation" minOccurs="0"/>
<element name="barringOfOutgoingCalls" minOccurs="0"/>
<element name="barringOfIncomingCalls" minOccurs="0"/>
<element name="barringOfRoaming" minOccurs="0"/>
<element name="barringOfPremiumRateCalls" minOccurs="0"/>
<element
  name="barringOfSupplementaryServiceManagement"
  minOccurs="0"
/>
<element
  name="barringOfRegistrationOfCallForwarding"
  minOccurs="0"
/>
<element
  name="barringOfInvocationOfCallTransfer"
  minOccurs="0"
/>
<element
  name="operatorDeterminedBarringPLMNspecificData"
  minOccurs="0"
/>
<element name="vGCSGroupMembershipList" minOccurs="0"/>
<element name="vBSGroupMembershipList" minOccurs="0"/>
<element
  name="broadcastCallInitiationAllowedList"
  minOccurs="0"
/>
<element
  name="originatingCAMELSubscriptionInformationOCSI"
  minOccurs="0"
/>
<element
  name="terminatingCAMELSubscriptionInformationTCSI"
  minOccurs="0"
/>
<element
  name="vMSCTerminatingCAMELSubscriptionInformationVTCSI"
  minOccurs="0"
/>
<element
  name="locationInformationSubscriberStateInformation"
  minOccurs="0"
/>
<element
  name="uSSDCAMELSubscriptionInformationUCSI"
  minOccurs="0"
/>
<element name="sSInvocationNotificationSSCSI" minOccurs="0"/>
<element
  name="translationInformationFlagTIFCSI"
  minOccurs="0"
/>
```

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```
            <element
              name="dialledServiceCAMELSubscriptionInformationDCSI"
              minOccurs="0"
            />
            <element
              name="uSSDGeneralCAMELServiceInformationUGCSI"
              minOccurs="0"
            />
            <element
            name="shortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
              minOccurs="0"
            />
            <element
            name="shortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
              minOccurs="0"
            />
            <element
              name="mTSMSCSIVLRNegotiatedCAMELCapabilityHandling"
              minOccurs="0"
            />
            <element name="gsmSCFaddressforCSI" minOccurs="0"/>
            <element name="iSTAlertTimer" minOccurs="0"/>
            <element name="cSAllocationRetentionpriority" minOccurs="0"/>
            <element name="sS-Code" minOccurs="0"/>
            <element name="provisioningState" minOccurs="0"/>
            <element name="activationState" minOccurs="0"/>
            <element name="registrationState" minOccurs="0"/>
            <element name="overrideCategory" minOccurs="0"/>
            <element name="cLIRestrictionOption" minOccurs="0"/>
            <element name="forwarded-toNumber" minOccurs="0"/>
            <element name="forwarded-toSubaddress" minOccurs="0"/>
            <element name="noReplyConditionTimer" minOccurs="0"/>
            <element name="maximumEntitledPriority" minOccurs="0"/>
            <element name="defaultPriority" minOccurs="0"/>
            <element name="nbrUser" minOccurs="0"/>
            <element name="nbrSB" minOccurs="0"/>
          </all>
        </complexType>
      </element>
      <choice minOccurs="0" maxOccurs="unbounded">
        <element ref="sn:SuMCSSupplService"/>
      </choice>
    </sequence>
  </extension>
  </complexContent>
  </complexType>
</element>
<element name="SuMCSSupplService">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
```

```
                    <all>
                      <element name="sS-Code" minOccurs="0"/>
                      <element name="provisioningState" minOccurs="0"/>
                      <element name="activationState" minOccurs="0"/>
                      <element name="registrationState" minOccurs="0"/>
                      <element name="overrideCategory" minOccurs="0"/>
                      <element name="cLIRestrictionOption" minOccurs="0"/>
                      <element name="forwarded-toNumber" minOccurs="0"/>
                      <element name="forwarded-toSubaddress" minOccurs="0"/>
                      <element name="noReplyConditionTimer" minOccurs="0"/>
                      <element name="maximumEntitledPriority" minOccurs="0"/>
                      <element name="defaultPriority" minOccurs="0"/>
                      <element name="nbrUser" minOccurs="0"/>
                      <element name="nbrSB" minOccurs="0"/>
                    </all>
                  </complexType>
                </element>
              </sequence>
            </extension>
          </complexContent>
        </complexType>
      </element>


<element
  name="PSService"
  substitutionGroup="sn:SuMService"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="agreementContract" minOccurs="0"/>
                <element name="networkAccessMode" minOccurs="0"/>
                <element name="basicMSISDNIndicator" minOccurs="0"/>
                <element name="mSISDNAlertIndicator" minOccurs="0"/>
                <element name="subscriptionRestriction" minOccurs="0"/>
                <element name="rSZIlists" minOccurs="0"/>
                <element name="lSAIdentity" minOccurs="0"/>
                <element name="lSAPriority" minOccurs="0"/>
                <element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
                <element name="lSAOnlyAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeIndicator" minOccurs="0"/>
                <element name="vPLMNIdentifier" minOccurs="0"/>
                <element name="accessRestrictionData" minOccurs="0"/>
                <element name="privacyExceptionList" minOccurs="0"/>
                <element name="gMLCNumbers" minOccurs="0"/>
                <element name="mOLRList" minOccurs="0"/>
                <element name="serviceTypes" minOccurs="0"/>
                <element name="gGSNNumber" minOccurs="0"/>
```

```
    <element name="provisionofTeleservice" minOccurs="0"/>
    <element name="transferofSMoption" minOccurs="0"/>
    <element
      name="barringofPacketOrientedServices"
      minOccurs="0"
    />
    <element name="pDPType" minOccurs="0"/>
    <element name="pDPAddress" minOccurs="0"/>
    <element name="accessPointName" minOccurs="0"/>
    <element name="vPLMNAddressAllowed" minOccurs="0"/>
    <element name="qualityofServiceSubscribed" minOccurs="0"/>
    <element
      name="pDPContextChargingCharacteristics"
      minOccurs="0"
    />
    <element
      name="gPRSCAMELSubscriptionInformationGPRSCSI"
      minOccurs="0"
    />
    <element
name="mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
      minOccurs="0"
    />
    <element
name="mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
      minOccurs="0"
    />
    <element
      name="mOSMSCSISGSNNegotiatedCAMELCapabilityHandling"
      minOccurs="0"
    />
    <element
      name="mTSMSCSISGSNNegotiatedCAMELCapabilityHandling"
      minOccurs="0"
    />
    <element
      name="mobilityManagementforGPRSeventnotificationMGCSI"
      minOccurs="0"
    />
    <element
      name="mGCSINegotiatedCAMELCapabilityHandling"
      minOccurs="0"
    />
    <element name="gsmSCFaddressforCSI" minOccurs="0"/>
    <element
      name="subscribedChargingCharacteristics"
      minOccurs="0"
    />
    <element name="w-APN" minOccurs="0"/>
    <element
      name="listofauthorizedvisitednetworkidentifiers"
      minOccurs="0"
    />
    <element name="wLANUERemoteIPaddress" minOccurs="0"/>
```

```
                      <element name="wLANAccess" minOccurs="0"/>
                      <element name="wLANTunnelling" minOccurs="0"/>
                      <element name="wLANDirectIPAccess" minOccurs="0"/>
                      <element name="wAPNAuthorised" minOccurs="0"/>
                      <element name="w-APNBarringType" minOccurs="0"/>
                      <element name="w-APNChargingData" minOccurs="0"/>
                      <element name="wLANUERemoteIPAddress" minOccurs="0"/>
                      <element name="accessIndependenceFlag" minOccurs="0"/>
                      <element name="i-WLANAccessType" minOccurs="0"/>
                      <element name="chargingData" minOccurs="0"/>
                      <element name="chargingCharacteristics" minOccurs="0"/>
                      <element name="primaryOCSChargingFunctionName" minOccurs="0"/>
                      <element
                        name="secondaryOCSChargingFunctionName"
                        minOccurs="0"
                      />
                      <element
                        name="primaryChargingCollectionFunctionName"
                        minOccurs="0"
                      />
                      <element
                        name="secondaryChargingCollectionFunctionName"
                        minOccurs="0"
                      />
                      <element name="sS-Code" minOccurs="0"/>
                      <element name="provisioningState" minOccurs="0"/>
                      <element name="activationState" minOccurs="0"/>
                    </all>
                  </complexType>
                </element>
                <choice minOccurs="0" maxOccurs="unbounded">
                  <element ref="sn:SuMPSSupplService"/>
                </choice>
              </sequence>
            </extension>
          </complexContent>
        </complexType>
      </element>

      <element name="SuMPSSupplService">
        <complexType>
          <complexContent>
            <extension base="xn:NrmClass">
              <sequence>
                <element name="attributes" minOccurs="0">
                  <complexType>
                    <all>
                      <element name="sS-Code" minOccurs="0"/>
                      <element name="provisioningState" minOccurs="0"/>
                      <element name="activationState" minOccurs="0"/>
                    </all>
                  </complexType>
                </element>
              </sequence>
```

```
          </extension>
        </complexContent>
      </complexType>
    </element>

    <element
      name="IMSService"
      substitutionGroup="sn:SuMService"
    >
      <complexType>
        <complexContent>
          <extension base="xn:NrmClass">
            <sequence>
              <element name="attributes" minOccurs="0">
                <complexType>
                  <all>
                    <element name="agreementContract" minOccurs="0"/>
                    <element
                      name="listofauthorizedvisitednetworkidentifiers"
                      minOccurs="0"
                    />
                    <element name="registrationStatus" minOccurs="0"/>
                    <element name="sCSCFName" minOccurs="0"/>
                    <element name="serverCapabilities" minOccurs="0"/>
                    <element
                      name="subscribedMediaProfileIdentifier"
                      minOccurs="0"
                    />
                    <element name="initialFilterCriteria" minOccurs="0"/>
                    <element name="applicationServerInformation" minOccurs="0"/>
                    <element name="serviceIndication" minOccurs="0"/>
                    <element
                      name="primaryEventChargingFunctionName"
                      minOccurs="0"
                    />
                    <element
                      name="secondaryEventChargingFunctionName"
                      minOccurs="0"
                    />
                    <element
                      name="primaryChargingCollectionFunctionName"
                      minOccurs="0"
                    />
                    <element
                      name="secondaryChargingCollectionFunctionName"
                      minOccurs="0"
                    />
                    <element name="gsmSCFaddressforIMCSI" minOccurs="0"/>
                    <element name="oIMCSI" minOccurs="0"/>
                    <element name="vTIMCSI" minOccurs="0"/>
                    <element name="dIMCS" minOccurs="0"/>
                    <element name="gAAServiceType" minOccurs="0"/>
                    <element name="gAAServiceIdentifier" minOccurs="0"/>
                    <element name="gBAUserSecuritySettings" minOccurs="0"/>
```

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```
                         <element name="userSecuritySetting" minOccurs="0"/>
                         <element name="userPublicIdentity" minOccurs="0"/>
                         <element name="gAAAuthorizationflag" minOccurs="0"/>
                         <element name="keyLifetime" minOccurs="0"/>
                         <element name="uICCSecuritySetting" minOccurs="0"/>
                         <element name="nAFGroupIdentity" minOccurs="0"/>
                  </all>
                </complexType>
              </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
</element>

<element name="SuMSubscribedService" type="xn:NrmClass" abstract="true"/>

<element
  name="CSSubscribedService"
  substitutionGroup="sn:SuMSubscribedService"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="descriptionService" minOccurs="0"/>
                <element name="agreementOffer" minOccurs="0"/>
                <element name="networkAccessMode" minOccurs="0"/>
                <element name="basicMSISDNIndicator" minOccurs="0"/>
                <element name="mSISDNAlertIndicator" minOccurs="0"/>
                <element name="subscriptionRestriction" minOccurs="0"/>
                <element name="rSZIlists" minOccurs="0"/>
                <element name="lSAIdentity" minOccurs="0"/>
                <element name="lSAPriority" minOccurs="0"/>
                <element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
                <element name="lSAOnlyAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeIndicator" minOccurs="0"/>
                <element name="vPLMNIdentifier" minOccurs="0"/>
                <element name="accessRestrictionData" minOccurs="0"/>
                <element name="privacyExceptionList" minOccurs="0"/>
                <element name="gMLCNumbers" minOccurs="0"/>
                <element name="mOLRList" minOccurs="0"/>
                <element name="serviceTypes" minOccurs="0"/>
                <element name="mobileStationCategory" minOccurs="0"/>
                <element name="lMUIdentifier" minOccurs="0"/>
                <element name="subscriberStatus" minOccurs="0"/>
                <element name="gsmSCFaddresslistForODB" minOccurs="0"/>
                <element name="provisionOfBearerService" minOccurs="0"/>
                <element name="provisionOfTeleservice" minOccurs="0"/>
                <element name="bCAllocation" minOccurs="0"/>
```

```
<element name="barringOfOutgoingCalls" minOccurs="0"/>
<element name="barringOfIncomingCalls" minOccurs="0"/>
<element name="barringOfRoaming" minOccurs="0"/>
<element name="barringOfPremiumRateCalls" minOccurs="0"/>
<element
  name="barringOfSupplementaryServiceManagement"
  minOccurs="0"
/>
<element
  name="barringOfRegistrationOfCallForwarding"
  minOccurs="0"
/>
<element
  name="barringOfInvocationOfCallTransfer"
  minOccurs="0"
/>
<element
  name="operatorDeterminedBarringPLMNspecificData"
  minOccurs="0"
/>
<element name="vGCSGroupMembershipList" minOccurs="0"/>
<element name="vBSGroupMembershipList" minOccurs="0"/>
<element
  name="broadcastCallInitiationAllowedList"
  minOccurs="0"
/>
<element
  name="originatingCAMELSubscriptionInformationOCSI"
  minOccurs="0"
/>
<element
  name="terminatingCAMELSubscriptionInformationTCSI"
  minOccurs="0"
/>
<element
  name="vMSCTerminatingCAMELSubscriptionInformationVTCSI"
  minOccurs="0"
/>
<element
  name="locationInformationSubscriberStateInformation"
  minOccurs="0"
/>
<element
  name="uSSDCAMELSubscriptionInformationUCSI"
  minOccurs="0"
/>
<element name="sSInvocationNotificationSSCSI" minOccurs="0"/>
<element
  name="translationInformationFlagTIFCSI"
  minOccurs="0"
/>
<element
  name="dialledServiceCAMELSubscriptionInformationDCSI"
  minOccurs="0"
```

```
                      />
                      <element
                        name="uSSDGeneralCAMELServiceInformationUGCSI"
                        minOccurs="0"
                      />
                      <element
                      name="shortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
                        minOccurs="0"
                      />
                      <element
                      name="shortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
                        minOccurs="0"
                      />
                      <element
                        name="mTSMSCSIVLRNegotiatedCAMELCapabilityHandling"
                        minOccurs="0"
                      />
                      <element name="gsmSCFaddressforCSI" minOccurs="0"/>
                      <element name="iSTAlertTimer" minOccurs="0"/>
                      <element name="cSAllocationRetentionpriority" minOccurs="0"/>
                      <element name="sS-Code" minOccurs="0"/>
                      <element name="provisioningState" minOccurs="0"/>
                      <element name="activationState" minOccurs="0"/>
                      <element name="registrationState" minOccurs="0"/>
                      <element name="overrideCategory" minOccurs="0"/>
                      <element name="cLIRestrictionOption" minOccurs="0"/>
                      <element name="forwarded-toNumber" minOccurs="0"/>
                      <element name="forwarded-toSubaddress" minOccurs="0"/>
                      <element name="noReplyConditionTimer" minOccurs="0"/>
                      <element name="maximumEntitledPriority" minOccurs="0"/>
                      <element name="defaultPriority" minOccurs="0"/>
                      <element name="nbrUser" minOccurs="0"/>
                      <element name="nbrSB" minOccurs="0"/>
                    </all>
                  </complexType>
                </element>
                <choice minOccurs="0" maxOccurs="unbounded">
                  <element ref="sn:SuMCSSupplService"/>
                </choice>
              </sequence>
            </extension>
          </complexContent>
        </complexType>
      </element>

      <element
        name="PSSubscribedService"
        substitutionGroup="sn:SuMSubscribedService"
      >
        <complexType>
          <complexContent>
            <extension base="xn:NrmClass">
              <sequence>
                <element name="attributes" minOccurs="0">
```

```
<complexType>
  <all>
    <element name="descriptionService" minOccurs="0"/>
    <element name="agreementOffer" minOccurs="0"/>
    <element name="networkAccessMode" minOccurs="0"/>
    <element name="basicMSISDNIndicator" minOccurs="0"/>
    <element name="mSISDNAlertIndicator" minOccurs="0"/>
    <element name="subscriptionRestriction" minOccurs="0"/>
    <element name="rSZIlists" minOccurs="0"/>
    <element name="lSAIdentity" minOccurs="0"/>
    <element name="lSAPriority" minOccurs="0"/>
    <element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
    <element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
    <element name="lSAOnlyAccessIndicator" minOccurs="0"/>
    <element name="lSAActiveModeIndicator" minOccurs="0"/>
    <element name="vPLMNIdentifier" minOccurs="0"/>
    <element name="accessRestrictionData" minOccurs="0"/>
    <element name="privacyExceptionList" minOccurs="0"/>
    <element name="gMLCNumbers" minOccurs="0"/>
    <element name="mOLRList" minOccurs="0"/>
    <element name="serviceTypes" minOccurs="0"/>
    <element name="gGSNNumber" minOccurs="0"/>
    <element name="provisionofTeleservice" minOccurs="0"/>
    <element name="transferofSMoption" minOccurs="0"/>
    <element
      name="barringofPacketOrientedServices"
      minOccurs="0"
    />
    <element name="pDPType" minOccurs="0"/>
    <element name="pDPAddress" minOccurs="0"/>
    <element name="accessPointName" minOccurs="0"/>
    <element name="vPLMNAddressAllowed" minOccurs="0"/>
    <element name="qualityofServiceSubscribed" minOccurs="0"/>
    <element
      name="pDPContextChargingCharacteristics"
      minOccurs="0"
    />
    <element
      name="gPRSCAMELSubscriptionInformationGPRSCSI"
      minOccurs="0"
    />
    <element
  name="mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
      minOccurs="0"
    />
    <element
  name="mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
      minOccurs="0"
    />
    <element
      name="mOSMSCSISGSNNegotiatedCAMELCapabilityHandling"
      minOccurs="0"
    />
    <element
```

```
              name="mTSMSCSISGSNNegotiatedCAMELCapabilityHandling"
              minOccurs="0"
            />
            <element
              name="mobilityManagementforGPRSeventnotificationMGCSI"
              minOccurs="0"
            />
            <element
              name="mGCSINegotiatedCAMELCapabilityHandling"
              minOccurs="0"
            />
            <element name="gsmSCFaddressforCSI" minOccurs="0"/>
            <element
              name="subscribedChargingCharacteristics"
              minOccurs="0"
            />
            <element name="w-APN" minOccurs="0"/>
            <element
              name="listofauthorizedvisitednetworkidentifiers"
              minOccurs="0"
            />
            <element name="wLANUERemoteIPaddress" minOccurs="0"/>
            <element name="wLANAccess" minOccurs="0"/>
            <element name="wLANTunnelling" minOccurs="0"/>
            <element name="wLANDirectIPAccess" minOccurs="0"/>
            <element name="wAPNAuthorised" minOccurs="0"/>
            <element name="w-APNBarringType" minOccurs="0"/>
            <element name="w-APNChargingData" minOccurs="0"/>
            <element name="wLANUERemoteIPAddress" minOccurs="0"/>
            <element name="accessIndependenceFlag" minOccurs="0"/>
            <element name="i-WLANAccessType" minOccurs="0"/>
            <element name="chargingData" minOccurs="0"/>
            <element name="chargingCharacteristics" minOccurs="0"/>
            <element name="primaryOCSChargingFunctionName" minOccurs="0"/>
            <element
              name="secondaryOCSChargingFunctionName"
              minOccurs="0"
            />
            <element
              name="primaryChargingCollectionFunctionName"
              minOccurs="0"
            />
            <element
              name="secondaryChargingCollectionFunctionName"
              minOccurs="0"
            />
            <element name="sS-Code" minOccurs="0"/>
            <element name="provisioningState" minOccurs="0"/>
            <element name="activationState" minOccurs="0"/>
          </all>
        </complexType>
      </element>
      <choice minOccurs="0" maxOccurs="unbounded">
        <element ref="sn:SuMPSSupplService"/>
```

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```
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="IMSSubscribedService"
    substitutionGroup="sn:SuMSubscribedService"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="descriptionService" minOccurs="0"/>
                  <element name="agreementOffer" minOccurs="0"/>
                  <element
                    name="listofauthorizedvisitednetworkidentifiers"
                    minOccurs="0"
                  />
                  <element name="registrationStatus" minOccurs="0"/>
                  <element name="sCSCFName" minOccurs="0"/>
                  <element name="serverCapabilities" minOccurs="0"/>
                  <element
                    name="subscribedMediaProfileIdentifier"
                    minOccurs="0"
                  />
                  <element name="initialFilterCriteria" minOccurs="0"/>
                  <element name="applicationServerInformation" minOccurs="0"/>
                  <element name="serviceIndication" minOccurs="0"/>
                  <element
                    name="primaryEventChargingFunctionName"
                    minOccurs="0"
                  />
                  <element
                    name="secondaryEventChargingFunctionName"
                    minOccurs="0"
                  />
                  <element
                    name="primaryChargingCollectionFunctionName"
                    minOccurs="0"
                  />
                  <element
                    name="secondaryChargingCollectionFunctionName"
                    minOccurs="0"
                  />
                  <element name="gsmSCFaddressforIMCSI" minOccurs="0"/>
                  <element name="oIMCSI" minOccurs="0"/>
                  <element name="vTIMCSI" minOccurs="0"/>
                  <element name="dIMCS" minOccurs="0"/>
```

```
                    <element name="gAAServiceType" minOccurs="0"/>
                    <element name="gAAServiceIdentifier" minOccurs="0"/>
                    <element name="gBAUserSecuritySettings" minOccurs="0"/>
                    <element name="userSecuritySetting" minOccurs="0"/>
                    <element name="userPublicIdentity" minOccurs="0"/>
                    <element name="gAAAuthorizationflag" minOccurs="0"/>
                    <element name="keyLifetime" minOccurs="0"/>
                    <element name="uICCSecuritySetting" minOccurs="0"/>
                    <element name="nAFGroupIdentity" minOccurs="0"/>
                  </all>
                </complexType>
              </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
</element>

<element name="SuMServiceProfile" type="xn:NrmClass" abstract="true"/>

<element
  name="CSServiceProfile"
  substitutionGroup="sn:SuMServiceProfile"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="descriptionSpecification" minOccurs="0"/>
                <element name="networkAccessMode" minOccurs="0"/>
                <element name="basicMSISDNIndicator" minOccurs="0"/>
                <element name="mSISDNAlertIndicator" minOccurs="0"/>
                <element name="vLRNumber" minOccurs="0"/>
                <element name="mSCNumber" minOccurs="0"/>
                <element name="subscriptionRestriction" minOccurs="0"/>
                <element name="rSZIlists" minOccurs="0"/>
                <element name="mSCAreaRestrictedFlag" minOccurs="0"/>
                <element name="oDBinducedBarringData" minOccurs="0"/>
                <element
                  name="roamingRestrictionDueToUnsupportedFeature"
                  minOccurs="0"
                />
                <element name="lSAIdentity" minOccurs="0"/>
                <element name="lSAPriority" minOccurs="0"/>
                <element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
                <element name="lSAOnlyAccessIndicator" minOccurs="0"/>
                <element name="lSAActiveModeIndicator" minOccurs="0"/>
                <element name="vPLMNIdentifier" minOccurs="0"/>
                <element name="accessRestrictionData" minOccurs="0"/>
                <element name="privacyExceptionList" minOccurs="0"/>
```

```
<element name="gMLCNumbers" minOccurs="0"/>
<element name="mOLRList" minOccurs="0"/>
<element name="serviceTypes" minOccurs="0"/>
<element name="ageIndicator" minOccurs="0"/>
<element name="lMSI" minOccurs="0"/>
<element name="mobileStationCategory" minOccurs="0"/>
<element name="lMUIdentifier" minOccurs="0"/>
<element name="mNRR" minOccurs="0"/>
<element name="subscriberStatus" minOccurs="0"/>
<element name="notificationToCSEFlagForODB" minOccurs="0"/>
<element name="gsmSCFaddresslistForODB" minOccurs="0"/>
<element name="messagesWaitingData" minOccurs="0"/>
<element name="mobileStationNotReachableFlag" minOccurs="0"/>
<element name="memoryCapacityExceededFlag" minOccurs="0"/>
<element name="traceReference" minOccurs="0"/>
<element name="traceType" minOccurs="0"/>
<element name="operationsSystemsIdentity" minOccurs="0"/>
<element name="hLRTraceType" minOccurs="0"/>
<element name="mAPErrorOnTrace" minOccurs="0"/>
<element name="traceActivatedInVLR" minOccurs="0"/>
<element name="provisionOfBearerService" minOccurs="0"/>
<element name="provisionOfTeleservice" minOccurs="0"/>
<element name="bCAllocation" minOccurs="0"/>
<element name="checkSSIndicator" minOccurs="0"/>
<element name="mSPurgedForNonGPRSFlag" minOccurs="0"/>
<element name="barringOfOutgoingCalls" minOccurs="0"/>
<element name="barringOfIncomingCalls" minOccurs="0"/>
<element name="barringOfRoaming" minOccurs="0"/>
<element name="barringOfPremiumRateCalls" minOccurs="0"/>
<element
  name="barringOfSupplementaryServiceManagement"
  minOccurs="0"
/>
<element
  name="barringOfRegistrationOfCallForwarding"
  minOccurs="0"
/>
<element
  name="barringOfInvocationOfCallTransfer"
  minOccurs="0"
/>
<element
  name="operatorDeterminedBarringPLMNspecificData"
  minOccurs="0"
/>
<element name="vGCSGroupMembershipList" minOccurs="0"/>
<element name="vBSGroupMembershipList" minOccurs="0"/>
<element
  name="broadcastCallInitiationAllowedList"
  minOccurs="0"
/>
<element
  name="originatingCAMELSubscriptionInformationOCSI"
  minOccurs="0"
```

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```
  />
  <element
    name="terminatingCAMELSubscriptionInformationTCSI"
    minOccurs="0"
  />
  <element
    name="vMSCTerminatingCAMELSubscriptionInformationVTCSI"
    minOccurs="0"
  />
  <element
    name="locationInformationSubscriberStateInformation"
    minOccurs="0"
  />
  <element
    name="uSSDCAMELSubscriptionInformationUCSI"
    minOccurs="0"
  />
  <element name="sSInvocationNotificationSSCSI" minOccurs="0"/>
  <element
    name="translationInformationFlagTIFCSI"
    minOccurs="0"
  />
  <element
    name="dialledServiceCAMELSubscriptionInformationDCSI"
    minOccurs="0"
  />
  <element
    name="uSSDGeneralCAMELServiceInformationUGCSI"
    minOccurs="0"
  />
  <element
    name="oCSINegotiatedCAMELCapabilityHandling"
    minOccurs="0"
  />
  <element
    name="sSCSINegotiatedCAMELCapabilityHandling"
    minOccurs="0"
  />
  <element
    name="vTCSINegotiatedCAMELCapabilityHandling"
    minOccurs="0"
  />
  <element
name="shortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
    minOccurs="0"
  />
  <element
name="shortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
    minOccurs="0"
  />
  <element
    name="mOSMSCSIVLRNegotiatedCAMELCapabilityHandling"
    minOccurs="0"
  />
```

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```
              <element
                name="mTSMSCSIVLRNegotiatedCAMELCapabilityHandling"
                minOccurs="0"
              />
              <element
                name="mCSINegotiatedCAMELCapabilityHandling"
                minOccurs="0"
              />
              <element name="vLRSupportedCAMELPhases" minOccurs="0"/>
              <element name="gsmSCFaddressforCSI" minOccurs="0"/>
              <element name="vLROfferedCAMEL4CSIs" minOccurs="0"/>
              <element name="iSTAlertTimer" minOccurs="0"/>
              <element name="cSAllocationRetentionpriority" minOccurs="0"/>
              <element name="traceReference2" minOccurs="0"/>
              <element name="TraceDepth" minOccurs="0"/>
              <element name="ListofNeTypestoTrace" minOccurs="0"/>
              <element name="TriggeringEvents" minOccurs="0"/>
              <element name="ListofInterfacestoTrace" minOccurs="0"/>
              <element name="sS-Code" minOccurs="0"/>
              <element name="provisioningState" minOccurs="0"/>
              <element name="activationState" minOccurs="0"/>
              <element name="registrationState" minOccurs="0"/>
              <element name="overrideCategory" minOccurs="0"/>
              <element name="cLIRestrictionOption" minOccurs="0"/>
              <element name="forwarded-toNumber" minOccurs="0"/>
              <element name="forwarded-toSubaddress" minOccurs="0"/>
              <element name="noReplyConditionTimer" minOccurs="0"/>
              <element name="maximumEntitledPriority" minOccurs="0"/>
              <element name="defaultPriority" minOccurs="0"/>
              <element name="nbrUser" minOccurs="0"/>
              <element name="nbrSB" minOccurs="0"/>
            </all>
          </complexType>
        </element>
        <choice minOccurs="0" maxOccurs="unbounded">
          <element ref="sn:SuMCSSupplService"/>
        </choice>
      </sequence>
    </extension>
  </complexContent>
 </complexType>
</element>

<element
  name="PSServiceProfile"
  substitutionGroup="sn:SuMServiceProfile"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
```

```
<element name="descriptionSpecification" minOccurs="0"/>
<element name="networkAccessMode" minOccurs="0"/>
<element name="basicMSISDNIndicator" minOccurs="0"/>
<element name="mSISDNAlertIndicator" minOccurs="0"/>
<element name="vLRNumber" minOccurs="0"/>
<element name="mSCNumber" minOccurs="0"/>
<element name="subscriptionRestriction" minOccurs="0"/>
<element name="rSZIlists" minOccurs="0"/>
<element name="mSCAreaRestrictedFlag" minOccurs="0"/>
<element name="oDBinducedBarringData" minOccurs="0"/>
<element
  name="roamingRestrictionDueToUnsupportedFeature"
  minOccurs="0"
/>
<element name="lSAIdentity" minOccurs="0"/>
<element name="lSAPriority" minOccurs="0"/>
<element name="lSAPreferentialAccessIndicator" minOccurs="0"/>
<element name="lSAActiveModeSupportIndicator" minOccurs="0"/>
<element name="lSAOnlyAccessIndicator" minOccurs="0"/>
<element name="lSAActiveModeIndicator" minOccurs="0"/>
<element name="vPLMNIdentifier" minOccurs="0"/>
<element name="accessRestrictionData" minOccurs="0"/>
<element name="privacyExceptionList" minOccurs="0"/>
<element name="gMLCNumbers" minOccurs="0"/>
<element name="mOLRList" minOccurs="0"/>
<element name="serviceTypes" minOccurs="0"/>
<element name="ageIndicator" minOccurs="0"/>
<element name="sGSNNumber" minOccurs="0"/>
<element name="gGSNNumber" minOccurs="0"/>
<element name="sGSNarearestrictedflag" minOccurs="0"/>
<element
  name="roamingRestrictedintheSGSNduetounsupportedfeature"
  minOccurs="0"
/>
<element name="mNRG" minOccurs="0"/>
<element name="traceActivatedinSGSN" minOccurs="0"/>
<element name="provisionofTeleservice" minOccurs="0"/>
<element name="transferofSMoption" minOccurs="0"/>
<element name="mSpurgedforGPRSflag" minOccurs="0"/>
<element
  name="barringofPacketOrientedServices"
  minOccurs="0"
/>
<element name="pDPType" minOccurs="0"/>
<element name="pDPAddress" minOccurs="0"/>
<element name="accessPointName" minOccurs="0"/>
<element name="vPLMNAddressAllowed" minOccurs="0"/>
<element name="gGSNlist" minOccurs="0"/>
<element name="qualityofServiceSubscribed" minOccurs="0"/>
<element name="pDPContextIdentifier" minOccurs="0"/>
<element
  name="pDPContextChargingCharacteristics"
  minOccurs="0"
/>
```

```
<element
  name="gPRSCAMELSubscriptionInformationGPRSCSI"
  minOccurs="0"
/>
<element
name="mOShortMessageServiceCAMELSubscriptionInformationMOSMSCSI"
  minOccurs="0"
/>
<element
name="mTShortMessageServiceCAMELSubscriptionInformationMTSMSCSI"
  minOccurs="0"
/>
<element
  name="mOSMSCSISGSNNegotiatedCAMELCapabilityHandling"
  minOccurs="0"
/>
<element
  name="mTSMSCSISGSNNegotiatedCAMELCapabilityHandling"
  minOccurs="0"
/>
<element
  name="mobilityManagementforGPRSeventnotificationMGCSI"
  minOccurs="0"
/>
<element
  name="mGCSINegotiatedCAMELCapabilityHandling"
  minOccurs="0"
/>
<element
  name="gPRSCSINegotiatedCAMELCapabilityHandling"
  minOccurs="0"
/>
<element name="sGSNSupportedCAMELPhases" minOccurs="0"/>
<element name="sGSNOfferedCAMEL4CSIs" minOccurs="0"/>
<element name="gsmSCFaddressforCSI" minOccurs="0"/>
<element
  name="subscribedChargingCharacteristics"
  minOccurs="0"
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<element name="w-APN" minOccurs="0"/>
<element
  name="listofauthorizedvisitednetworkidentifiers"
  minOccurs="0"
/>
<element name="wLANUERemoteIPaddress" minOccurs="0"/>
<element name="wLANAccess" minOccurs="0"/>
<element name="wLANTunnelling" minOccurs="0"/>
<element name="wLANDirectIPAccess" minOccurs="0"/>
<element name="wAPNAuthorised" minOccurs="0"/>
<element name="w-APNBarringType" minOccurs="0"/>
<element name="w-APNChargingData" minOccurs="0"/>
<element name="wLANUERemoteIPAddress" minOccurs="0"/>
<element name="accessIndependenceFlag" minOccurs="0"/>
<element name="i-WLANAccessType" minOccurs="0"/>
```

```
                <element name="chargingData" minOccurs="0"/>
                <element name="chargingCharacteristics" minOccurs="0"/>
                <element name="primaryOCSChargingFunctionName" minOccurs="0"/>
                <element
                  name="secondaryOCSChargingFunctionName"
                  minOccurs="0"
                />
                <element name="traceReference2" minOccurs="0"/>
                <element name="TraceDepth" minOccurs="0"/>
                <element name="ListofNeTypestoTrace" minOccurs="0"/>
                <element name="TriggeringEvents" minOccurs="0"/>
                <element name="ListofInterfacestoTrace" minOccurs="0"/>
                <element
                  name="primaryChargingCollectionFunctionName"
                  minOccurs="0"
                />
                <element
                  name="secondaryChargingCollectionFunctionName"
                  minOccurs="0"
                />
                <element name="sS-Code" minOccurs="0"/>
                <element name="provisioningState" minOccurs="0"/>
                <element name="activationState" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="sn:SuMPSSupplService"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element
  name="IMSServiceProfile"
  substitutionGroup="sn:SuMServiceProfile"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="descriptionSpecification" minOccurs="0"/>
                <element
                  name="listofauthorizedvisitednetworkidentifiers"
                  minOccurs="0"
                />
                <element name="registrationStatus" minOccurs="0"/>
                <element name="sCSCFName" minOccurs="0"/>
                <element name="diameterClientAddressofSCSCF" minOccurs="0"/>
```

ETSI

```
                                  <element name="serverCapabilities" minOccurs="0"/>
                                  <element
                                    name="subscribedMediaProfileIdentifier"
                                    minOccurs="0"
                                  />
                                  <element name="initialFilterCriteria" minOccurs="0"/>
                                  <element name="applicationServerInformation" minOccurs="0"/>
                                  <element name="serviceIndication" minOccurs="0"/>
                                  <element
                                    name="primaryEventChargingFunctionName"
                                    minOccurs="0"
                                  />
                                  <element
                                    name="secondaryEventChargingFunctionName"
                                    minOccurs="0"
                                  />
                                  <element
                                    name="primaryChargingCollectionFunctionName"
                                    minOccurs="0"
                                  />
                                  <element
                                    name="secondaryChargingCollectionFunctionName"
                                    minOccurs="0"
                                  />
                                  <element name="gsmSCFaddressforIMCSI" minOccurs="0"/>
                                  <element name="iMSSFaddressforIMCSI" minOccurs="0"/>
                                  <element name="oIMCSI" minOccurs="0"/>
                                  <element name="vTIMCSI" minOccurs="0"/>
                                  <element name="dIMCS" minOccurs="0"/>
                                  <element name="gAAServiceType" minOccurs="0"/>
                                  <element name="gAAServiceIdentifier" minOccurs="0"/>
                                  <element name="gBAUserSecuritySettings" minOccurs="0"/>
                                  <element name="userSecuritySetting" minOccurs="0"/>
                                  <element name="userPublicIdentity" minOccurs="0"/>
                                  <element name="gAAAuthorizationflag" minOccurs="0"/>
                                  <element name="keyLifetime" minOccurs="0"/>
                                  <element name="uICCSecuritySetting" minOccurs="0"/>
                                  <element name="nAFGroupIdentity" minOccurs="0"/>
                              </all>
                          </complexType>
                      </element>
                      <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="sn:IMSPublicIdentification"/>
                        <element ref="sn:IMSServiceProfileOptionallyContainedNrmClass"/>
                      </choice>
                  </sequence>
              </extension>
          </complexContent>
      </complexType>
  </element>


  <element name="IMSPublicIdentification">
    <complexType>
```

```
          <complexContent>
            <extension base="xn:NrmClass">
              <sequence>
                <element name="attributes" minOccurs="0">
                  <complexType>
                    <all>
                      <element name="publicUserIdentity" type="string" minOccurs="0"/>
                      <element name="barringIndication" type="sn:binEnum" minOccurs="0"/>
                    </all>
                  </complexType>
                </element>
              </sequence>
            </extension>
          </complexContent>
        </complexType>
      </element>

      <simpleType name="binEnum">
        <restriction base="string">
          <enumeration value="FALSE"/>
          <enumeration value="TRUE"/>
        </restriction>
      </simpleType>

      <simpleType name="multinumberingMSISDNIndicator">
        <restriction base="string">
          <enumeration value="BASIC"/>
          <enumeration value="ALERT"/>
        </restriction>
      </simpleType>

      <complexType name="multinumberingMSISDNList">
        <sequence minOccurs="0" maxOccurs="unbounded">
          <element name="mSISDN" type="string"/>
          <element name="indicator" type="sn:multinumberingMSISDNIndicator"/>
        </sequence>
      </complexType>

      <element name="IMSServiceProfileOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
      <element name="SuMCredentialsOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
      <element name="SuMSubscriberProfileOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
      <element name="SuMUserOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>

    </schema>
```

Annex B (informative):
Void

Annex C (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
Mar 2005	SA_27	SP-050025	--	--	Submitted to TSG SA#27 for Approval	--	1.0.0	6.0.0
Jun 2005	SA_28	SP-050269	0001	--	Add Rel-6 trace parameters to SuM - - align with CT4's TS 23.008 (Organisation of subscriber data)	F	6.0.0	6.1.0
Mar 2006	SA_31	SP-060092	0002	--	Remove duplicate attributes in XML Schema	F	6.1.0	6.2.0
Jun 2007	SA_36	--	--	--	Automatic upgrade to Rel-7 (no CR) at freeze of Rel-7. Added in the "Scope" the SS-IS relationship text.	--	6.2.0	7.0.0
Sep 2007	SA_37	SP-070614	0003	--	XSD updates based on changed IS - Align with 32.172	C	7.0.0	8.0.0
Dec 2009	SA_46	SP-090719	0005	--	Discontinuation of the maintenance of XML schema folders	F	8.0.0	9.0.0

History

Document history		
V9.0.0	January 2010	Publication