

# ETSI TS 128 706 V11.1.0 (2014-07)



**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Telecommunication management;  
IP Multimedia Subsystem (IMS)  
Network Resource Model (NRM)  
Integration Reference Point (IRP);  
Solution Set (SS) definitions  
(3GPP TS 28.706 version 11.1.0 Release 11)**



---

**Reference**

RTS/TSGS-0528706vb10

---

**Keywords**

LTE,UMTS

**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

---

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

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

**Important notice**

The present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

[http://portal.etsi.org/chaicor/ETSI\\_support.asp](http://portal.etsi.org/chaicor/ETSI_support.asp)

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2014.

All rights reserved.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

## Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

---

## Foreword

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

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

---

## Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	5
1 Scope .....	6
2 References .....	6
3 Definitions and abbreviations.....	6
3.1 Definitions .....	6
3.2 Abbreviations .....	7
4 Solution Set definitions .....	7
<b>Annex A (normative): CORBA Solution Set .....</b>	<b>9</b>
A.1 Architectural Features .....	9
A.1.1 Syntax for Distinguished Names .....	9
A.1.2 Rules for NRM extensions .....	9
A.1.3 Notifications .....	9
A.2 Mapping .....	9
A.2.1 General mappings.....	9
A.2.2 Information Object Class (IOC) mapping .....	9
A.2.2.1 IOC ASFunction.....	9
A.2.2.2 IOC BGCFFunction.....	10
A.2.2.3 IOC CSCFFunction.....	10
A.2.2.4 IOC HSSFunction .....	10
A.2.2.5 IOC IMSMGWFunction .....	10
A.2.2.6 IOC MGCFFunction.....	11
A.2.2.7 IOC MRFCFunction.....	11
A.2.2.8 IOC MRFPFunction.....	11
A.2.2.9 IOC SLFFunction .....	11
A.2.2.10 IOC Link_CAMELIMSSFAS_HSS .....	11
A.2.2.11 IOC Link_AS_ICSCF .....	11
A.2.2.12 IOC Link_AS_SCSCF .....	12
A.2.2.13 IOC Link_AS_SLF .....	12
A.2.2.14 IOC Link_BGCF_BGCF.....	12
A.2.2.15 IOC Link_BGCF_MGCF.....	12
A.2.2.17 IOC Link_HSS_ICSCF.....	12
A.2.2.29 IOC Link_SCSCF_SLF .....	13
A.2.2.30 IOC Link_HSS_SIPAS.....	13
A.2.2.31 IOC Link_HSS_OSASCSAS.....	13
A.2.2.32 IOC Link_PCSCF_ECSCF .....	13
A.2.2.33 IOC Link_BGCF_ECSCF.....	13
A.2.2.34 IOC Link_MGCF_ECSCF.....	13
A.3 Solution Set definitions .....	13
A.3.1 IDL definition structure.....	13
A.3.2 IDL specification "IMSNRMDefs.idl".....	14
<b>Annex B (normative): XML definitions .....</b>	<b>20</b>
B.1 Architectural features .....	20
B.1.1 Syntax for Distinguished Names .....	20

B.2 Mapping .....20

B.3 Solution Set definitions .....20

B.3.1 XML definition structure.....20

B.3.2 XML Schema “imsNrm.xsd” .....21

**Annex C (informative): Change history .....36**

History .....37

---

## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

---

## Introduction

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

- |               |  |
|---------------|--|
| 28.704:       | IP Multimedia Subsystem (IMS) Network Resource Model (NRM) Integration Reference Point (IRP); Requirements                         |
| 28.705:       | IP Multimedia Subsystem (IMS) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)             |
| <b>28.706</b> | <b>IP Multimedia Subsystem (IMS) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions</b> |

---

# 1 Scope

The present document specifies the Solution Sets for the IMS NRM IRP.

The Solution Set definition is related to 3GPP TS 28.705 V11.0.X [3].

---

# 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 28.705: "Telecommunication management; IP Multimedia Subsystem (IMS) Network Resource Model (NRM) Integration Reference Point (IRP): Information Service (IS)".
  - [4] 3GPP TS 32.306: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Solution Set (SS) definitions".
  - [5] 3GPP TS 28.623: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions".
  - [6] 3GPP TS 32.300 "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".
  - [7] W3C REC-xml-names-20060816: "Namespaces in XML 1.1 (Second Edition)".
  - [8] 3GPP TS 32.612: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Information Service (IS)".
  - [9] 3GPP TS 32.616: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Solution Set (SS) definitions".
  - [10] W3C REC-xml11-20060816: "Extensible Markup Language (XML) 1.1 (Second Edition)".
  - [11] Void
  - [12] W3C XML Schema Definition Language (XSD) 1.1 Part 1: Structures.
  - [13] W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.
- 

# 3 Definitions and abbreviations

## 3.1 Definitions

For terms and definitions please refer to TS 32.101 [1], TS 32.102 [2] and TS 28.705 [3].

For the purposes of the present document, the following XML terms and definitions apply:

**XML file:** See definition of [5].

**XML document:** See definition of [5].

**XML declaration:** See definition of [5].

**XML element:** See definition of [5].

**empty XML element:** See definition of [5].

**XML content (of an XML element):** See definition of [5].

**XML start-tag:** See definition of [5].

**XML end-tag:** See definition of [5].

**XML empty-element tag:** See definition of [5].

**XML attribute specification:** See definition of [5].

**DTD:** See definition of [5].

**XML schema:** See definition of [5].

**XML namespace:** See definition of [5].

**XML complex type:** See definition of [5].

**XML element type:** See definition of [5].

## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CM	Configuration Management
CORBA	Common Object Request Broker Architecture
DN	Distinguished Name
DTD	Document Type Definition
EDGE	Enhanced Data for GSM Evolution
GERAN	GSM/EDGE Radio Access Network
GSM	Global System for Mobile communication
IDL	Interface Definition Language (OMG)
IMS	IP Multimedia Subsystem
IOC	Information Object Class
IRP	Integration Reference Point
IS	Information Service
MGW	Media GateWay
MO	Managed Object
MOC	Managed Object Class
NRM	Network Resource Model
OMG	Object Management Group
SS	Solution Set
UMTS	Universal Mobile Telecommunications System
UTRAN	Universal Terrestrial Radio Access Network
XML	eXtensible Markup Language

---

## 4 Solution Set definitions

This specification defines the following 3GPP IMS NRM IRP Solution Set definitions:

- 3GPP IMS NRM IRP CORBA SS (Annex A)

- 3GPP IMS NRM IRP XML definitions (Annex B)

---

## Annex A (normative): CORBA Solution Set

This annex contains the CORBA Solution Set for the IRP whose semantics is specified in IMS NRM IRP: Information Service (TS 28.705 [3]).

---

### A.1 Architectural Features

The overall architectural feature of IMS NRM IRP is specified in 3GPP TS 28.705[3].

This clause specifies features that are specific to the CORBA SS.

#### A.1.1 Syntax for Distinguished Names

See clause A.1.1 of [5].

#### A.1.2 Rules for NRM extensions

See clause A.1.2 of [5].

#### A.1.3 Notifications

Notifications are sent according to the Notification IRP: CORBA SS (see 3GPP TS 32.306 [4]).

---

### A.2 Mapping

#### A.2.1 General mappings

See clause A.2.1 of [5].

#### A.2.2 Information Object Class (IOC) mapping

##### A.2.2.1 IOC `asFunction`

**Mapping from NRM IOC `asFunction` attributes to SS equivalent MOC `asFunction`**

Attributes of IOC <code>asFunction</code> in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
<code>id</code>	<code>asFunctionId</code>	<code>string</code>	Read-Only, M
<code>linkList</code>	<code>linkList</code>	<code>GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet</code>	Read-Only, O

### A.2.2.2 IOC BGCFFunction

#### Mapping from NRM IOC BGCFFunction attributes to SS equivalent MOC BGCFFunction

Attributes of IOC BGCFFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	bgcfFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.3 IOC CSCFFunction

#### Mapping from NRM IOC CSCFFunction attributes to SS equivalent MOC CSCFFunction

Attributes of IOC CSCFFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	cscfFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.4 IOC HSSFunction

#### Mapping from NRM IOC HSSFunction attributes to SS equivalent MOC HSSFunction

Attributes of IOC HSSFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	hssFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.5 IOC IMSMGWFunction

#### Mapping from NRM IOC IMSMGWFunction attributes to SS equivalent MOC IMSMGWFunction attributes

Attributes of IOC IMSMGWFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	imsMgwFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.6 IOC MGCFFunction

#### Mapping from NRM IOC MGCFFunction attributes to SS equivalent MOC MGCFFunction

Attributes of IOC MGCFFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	mgcfFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.7 IOC MRFCFunction

#### Mapping from NRM IOC MRFCFunction attributes to SS equivalent MOC MRFCFunction

Attributes of IOC MRFCFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	mrfcFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.8 IOC MRFPFunction

#### Mapping from NRM IOC MRFPFunction attributes to SS equivalent MOC MRFPFunction

Attributes of IOC MRFPFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	mrfpFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.9 IOC SLFFunction

#### Mapping from NRM IOC SLFFunction attributes to SS equivalent MOC SLFFunction

Attributes of IOC SLFFunction in TS 28.705 [3]	SS Attributes	SS Type	Qualifier
id	slfFunctionId	string	Read-Only, M
linkList	linkList	GenericNetworkResourcesIRPSystem::AttributeTypes::LinkListSet	Read-Only, O

### A.2.2.10 IOC Link\_CAMELIMSSFAS\_HSS

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

### A.2.2.11 IOC Link\_AS\_ICSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.12 IOC Link\_AS\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.13 IOC Link\_AS\_SLF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.14 IOC Link\_BGCF\_BGCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.15 IOC Link\_BGCF\_MGCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.16 IOC Link\_BGCF\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.17 IOC Link\_HSS\_ICSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.18 IOC Link\_ICSCF\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.19 IOC Link\_ICSCF\_MGCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.20 IOC Link\_ICSCF\_PCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.21 IOC Link\_PCSCF\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.22 IOC Link\_HSS\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.23 IOC Link\_ICSCF\_SLF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.24 IOC Link\_IMSMGW\_MGCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.25 IOC Link\_MGCF\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.26 IOC Link\_MRFC\_MRFP

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.27 IOC Link\_MRFC\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.28 IOC Link\_SCSCF\_SCSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.29 IOC Link\_SCSCF\_SLF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.30 IOC Link\_HSS\_SIPAS

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.31 IOC Link\_HSS\_OSASCSAS

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.32 IOC Link\_PCSCF\_ECSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.33 IOC Link\_BGCF\_ECSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

#### A.2.2.34 IOC Link\_MGCF\_ECSCF

All attributes are inherited from Link. See mapping of attributes for Link IOC in 3GPP TS 28.623 [5].

document may not be subclassed or extended. New interfaces may be defined with vendor-specific methods.

---

## A.3 Solution Set definitions

### A.3.1 IDL definition structure

Clause A.3.2 defines the MO classes for the IMS NRM IRP.

## A.3.2 IDL specification "IMSNRMDefs.idl"

```

// File: IMSNRMDefs.idl
#ifndef _IMSNRMDEFS_IDL_
#define _IMSNRMDEFS_IDL_
#include "GenericNetworkResourcesNRMDefs.idl"

#pragma prefix "3gppsa5.org"

/**
 * This module defines constants for each MO class name and
 * the attribute names for each defined MO class.
 */
module IMSNRMDefs
{
    /**
     * Definitions for MO class ASFunction
     */
    interface ASFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
    {
        const string CLASS = "ASFunction";

        // Attribute Names
        //
        const string asFunctionId = "asFunctionId";
        const string linkList = "linkList";
    };
    /**
     * Definitions for MO class SIPASFunction
     */
    interface SIPASFunction : ASFunction
    {
        const string CLASS = "SIPASFunction";

        // All Attributes inherited from ASFunction
    };
    /**
     * Definitions for MO class OSASCSASFunction
     */
    interface OSASCSASFunction : ASFunction
    {
        const string CLASS = "OSASCSASFunction";

        // All Attributes inherited from ASFunction
    };
    /**
     * Definitions for MO class CAMELIMSSFASFunction
     */
    interface CAMELIMSSFASFunction : ASFunction
    {
        const string CLASS = "CAMELIMSSFASFunction";

        // All Attributes inherited from ASFunction
    };
    /**
     * Definitions for MO class BGCFFunction
     */
    interface BGCFFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
    {
        const string CLASS = "BGCFFunction";

        // Attribute Names
        //
        const string bgcfFunctionId = "bgcfFunctionId";
        const string linkList = "linkList";
    };
    /**
     * Definitions for MO class CSCFFunction
     */
    interface CSCFFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
    {
        const string CLASS = "CSCFFunction";
        // Attribute Names
        //
        const string cscfFunctionId = "cscfFunctionId";
        const string linkList = "linkList";
    };
}

```

```

};
/**
 * Definitions for MO class ICSCFFunction
 */
interface ICSCFFunction : CSCFFunction
{
    const string CLASS = "ICSCFFunction";

    // All Attributes inherited from CSCFFunction
    //
};
/**
 * Definitions for MO class IMSMGWFunction
 */
interface IMSMGWFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "IMSMGWFunction";

    // Attribute Names
    //
    const string imsMgwFunctionId = "imsMgwFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class MGCFFunction
 */
interface MGCFFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "MGCFFunction";

    // Attribute Names
    //
    const string mgcfFunctionId = "mgcfFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class MRFCFunction
 */
interface MRFCFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "MRFCFunction";

    // Attribute Names
    //
    const string mrfcFunctionId = "mrfcFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class MRFPFunction
 */
interface MRFPFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "MRFPFunction";

    // Attribute Names
    //
    const string mrfpFunctionId = "mrfpFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class PCSCFFunction
 */
interface PCSCFFunction : CSCFFunction
{
    const string CLASS = "PCSCFFunction";
    // All Attributes inherited from CSCFFunction
    //
};
/**
 * Definitions for MO class SCSCFFunction
 */
interface SCSCFFunction : CSCFFunction
{
    const string CLASS = "SCSCFFunction";

    // All Attributes inherited from CSCFFunction
    //
};
/**

```

```
* Definitions for MO class SLFFunction
*/
interface SLFFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "SLFFunction";

    // Attribute Names
    //
    const string slfFunctionId = "slfFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class ECSCFFunction
 */
interface ECSCFFunction : CSCFFunction
{
    const string CLASS = "ECSCFFunction";
    // All Attributes inherited from CSCFFunction
    //
};
/**
 * Definitions for MO class Link_AS_SCSCF
 */
interface Link_AS_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_AS_SCSCF";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_AS_SLF
 */
interface Link_AS_SLF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_AS_SLF";
    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_BGCF_BGCF
 */
interface Link_BGCF_BGCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_BGCF_BGCF";
    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_BGCF_MGCF
 */
interface Link_BGCF_MGCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_BGCF_MGCF";
    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_BGCF_SCSCF
 */
interface Link_BGCF_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_BGCF_SCSCF";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_SCSCF_ICSCF
 */
interface Link_SCSCF_ICSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_SCSCF_ICSCF";
    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_ICSCF_Mgcf
 */
```

```

interface Link_ICSCF_Mgcf: GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_ICSCF_Mgcf";
    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_ICSCF_PCSCF
 */
interface Link_ICSCF_PCSCF: GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_ICSCF_PCSCF";
    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_PCSCF_SCSCF
 */
interface Link_PCSCF_SCSCF: GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_PCSCF_SCSCF";
    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_ICSCF_SLF
 */
interface Link_ICSCF_SLF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_ICSCF_SLF";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_IMSMGW_MGCF
 */
interface Link_IMSMGW_MGCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_IMSMGW_MGCF";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_MGCF_SCSCF
 */
interface Link_MGCF_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_MGCF_SCSCF";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_MRFC_MRFP
 */
interface Link_MRFC_MRFP : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_MRFC_MRFP";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_MRFC_SCSCF
 */
interface Link_MRFC_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_MRFC_SCSCF";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_SCSCF_SCSCF
 */
interface Link_SCSCF_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_SCSCF_SCSCF";

    // All Attributes inherited from Link
};

/**
 * Definitions for MO class Link_SCSCF_SLF

```

```
*/
interface Link_SCSCF_SLF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_SCSCF_SLF";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class HSSFunction
 */
interface HSSFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "HSSFunction";

    // Attribute Names
    //
    const string hssFunctionId = "hssFunctionId";
    const string linkList = "linkList";
};
/**
 * Definitions for MO class Link_HSS_SCSCF
 */
interface Link_HSS_SCSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_HSS_SCSCF";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_HSS_ICSCF
 */
interface Link_HSS_ICSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_HSS_ICSCF";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_HSS_SIPAS
 */
interface Link_HSS_SIPAS : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_HSS_SIPAS";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_HSS_OSASCSAS
 */
interface Link_HSS_OSASCSAS : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_HSS_OSASCSAS";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_CAMELIMSSFAS_HSS
 */
interface Link_CAMELIMSSFAS_HSS : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_CAMELIMSSFAS_HSS";

    // All Attributes inherited from Link
};
/**
 * Definitions for MO class Link_AS_ICSCF
 */
interface Link_AS_ICSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_AS_ICSCF";

    // All Attributes inherited from Link
};
};
/**
 * Definitions for MO class Link_PCSCF_ECSCF
 */
```

```
interface Link_PCSCF_ECSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_PCSCF_ECSCF";

    // All Attributes inherited from Link

};
/**
 * Definitions for MO class Link_BGCF_ECSCF
 */
interface Link_BGCF_ECSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_BGCF_ECSCF";

    // All Attributes inherited from Link

};
/**
 * Definitions for MO class Link_MGCF_ECSCF
 */
interface Link_MGCF_ECSCF : GenericNetworkResourcesNRMDefs::Link
{
    const string CLASS = "Link_MGCF_ECSCF";

    // All Attributes inherited from Link

};
};

#endif // _IMSNRMDEFS_IDL_
```

---

## Annex B (normative): XML definitions

This annex provides the NRM-specific part related to the IMS NRM IRP [3] of the XML file format definition for the Bulk Configuration Management IRP IS [8].

The main part of this XML file format definition is provided by 3GPP TS 32.616 [9].

The XML file formats are based on XML [10], XML Schema [12] [13] and XML Namespace [7] standards.

---

### B.1 Architectural features

The overall architectural feature of IMS NRM IRP is specified in 3GPP TS 28.705 [3].

This clause specifies features that are specific to the XML Schema definitions.

#### B.1.1 Syntax for Distinguished Names

The syntax of a Distinguished Name is defined in 3GPP TS 32.300 [6].

---

### B.2 Mapping

The mapping is not present in the current version of this specification.

---

### B.3 Solution Set definitions

#### B.3.1 XML definition structure

The overall description of the file format of configuration data XML files is provided by 3GPP TS 32.616 [9].

B.3.2 of the present document defines the NRM-specific XML schema `imsNrm.xsd` for the IMS NRM IRP IS defined in 3GPP TS 28.705 [3].

XML schema `imsNrm.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 32.616 [9].

## B.3.2 XML Schema "imsNrm.xsd"

```

<?xml version="1.1" encoding="UTF-8"?>

<!--
 3GPP TS 28.706 IMS NRM IRP
 Bulk CM Configuration data file NRM-specific XML schema
 imsNrm.xsd
-->

<schema
 targetNamespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.736#imsNrm"
 elementFormDefault="qualified"
 attributeFormDefault="unqualified"
 xmlns="http://www.w3.org/2001/XMLSchema"
 xmlns:xn="http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
 xmlns:im="http://www.3gpp.org/ftp/specs/archive/28_series/28.706#imsNrm"
>

<import namespace="http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"/>

<!--IMS NRM IRP IS class associated XML elements -->

<element
 name="ASFunction"
 substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
<complexType>
<complexContent>
<extension base="xn:NrmClass">
<sequence>
<element name="attributes" minOccurs="0">
<complexType>
<all>
<element name="userLabel" type="string"/>
<element name="linkList" type="xn:linkListType" minOccurs="0"/>
</all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
<element ref="im:ASFunctionOptionallyContainedNrmClass"/>
<element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element
 name="CAMELIMSSFASFunction"
 substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
<complexType>
<complexContent>
<extension base="xn:NrmClass">
<sequence>
<element name="attributes" minOccurs="0">
<complexType>
<all>
<element name="userLabel" type="string"/>
<element name="linkList" type="xn:linkListType" minOccurs="0"/>
</all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
<element ref="im:ASFunctionOptionallyContainedNrmClass"/>
<element ref="im:CAMELIMSSFASFunctionFunctionOptionallyContainedNrmClass"/>
<element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

```

```

<element
  name="OSASCSASFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string"/>
                <element name="linkList" type="xn:linkListType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:ASFunctionOptionallyContainedNrmClass"/>
            <element ref="im:OSASCSASFunctionOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element
  name="SIPASFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string"/>
                <element name="linkList" type="xn:linkListType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:ASFunctionOptionallyContainedNrmClass"/>
            <element ref="im:SIPASFunctionOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element
  name="BGCFFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string"/>
                <element name="linkList" type="xn:linkListType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:BGCFFunctionOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

    </complexType>
  </element>

  <element
    name="ICSCFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:ICSCFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="IMSMGWFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:IMSMGWFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="MGCFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:MGCFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

```

```

    </complexType>
  </element>

  <element
    name="MRFCFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:MRFCFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="MRFPFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:MRFPFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="PCSCFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:PCSCFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

```

```

    </complexType>
  </element>

  <element
    name="SCSCFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:SCSCFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="ECSCFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:ECSCFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element
    name="SLFFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string"/>
                  <element name="linkList" type="xn:linkListType" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:SLFFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

```

```

</complexType>
</element>

<element name="Link_AS_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_AS_SCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_AS_SLF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_AS_SLFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_BGCF_BGCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_BGCF_BGCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

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

<element name="Link_BGCF_MGCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_BGCF_MGCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_BGCF_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_BGCF_SCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_ICSCF_SCSCF"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        </complexType>
      </element>
    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="im:Link_ICSCF_SCSCFOptionallyContainedNrmClass"/>
      <element ref="xn:VsDataContainer"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>
<element name="Link_ICSCF_MGCF"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_ICSCF_MGCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_ICSCF_PCSCF"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_ICSCF_PCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_PCSCF_SCSCF"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>

```

```

    <all>
      <element name="aEnd" type="xn:dn"/>
      <element name="linkType" type="xn:linkType" minOccurs="0"/>
      <element name="protocolName" type="string" minOccurs="0"/>
      <element name="protocolVersion" type="string" minOccurs="0"/>
      <element name="userLabel" type="string"/>
      <element name="zEnd" type="xn:dn"/>
    </all>
  </complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="im:Link_PCSCF_SCSCFOptionallyContainedNrmClass"/>
  <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>
<element name="Link_ICSCF_SLF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_ICSCF_SLFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="Link_IMSMGW_MGCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_IMSMGW_MGCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="Link_MGCF_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>

```

```

    <element name="attributes" minOccurs="0">
      <complexType>
        <all>
          <element name="aEnd" type="xn:dn"/>
          <element name="linkType" type="xn:linkType" minOccurs="0"/>
          <element name="protocolName" type="string" minOccurs="0"/>
          <element name="protocolVersion" type="string" minOccurs="0"/>
          <element name="userLabel" type="string"/>
          <element name="zEnd" type="xn:dn"/>
        </all>
      </complexType>
    </element>
    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="im:Link_MGCF_SCSCFOptionallyContainedNrmClass"/>
      <element ref="xn:VsDataContainer"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="Link_MRFC_MRFP" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_MRFC_MRFPOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_MRFC_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_MRFC_SCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_SCSCF_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>

```

```

    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_SCSCF_SCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_SCSCF_SLF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_SCSCF_SLFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

  <element
name="HSSFunction"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
>
<complexType>
  <complexContent>
    <extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
            <all>
              <element name="userLabel" type="string"/>
              <element name="linkList" type="xn:linkListType" minOccurs="0"/>
            </all>
          </complexType>
        </element>
        <choice minOccurs="0" maxOccurs="unbounded">
          <element ref="im:HSSFunctionOptionallyContainedNrmClass"/>
          <element ref="xn:VsDataContainer"/>
        </choice>
      </sequence>
    </extension>
  </complexContent>
</complexType>
</element>

```

```

<element name="Link_HSS_SCSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_HSS_SCSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_HSS_ICSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_HSS_ICSCFOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="Link_HSS_SIPAS" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="aEnd" type="xn:dn"/>
                <element name="linkType" type="xn:linkType" minOccurs="0"/>
                <element name="protocolName" type="string" minOccurs="0"/>
                <element name="protocolVersion" type="string" minOccurs="0"/>
                <element name="userLabel" type="string"/>
                <element name="zEnd" type="xn:dn"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="im:Link_HSS_SIPASOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

    </complexType>
  </element>

  <element name="Link_HSS_OSASCSAS" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="aEnd" type="xn:dn"/>
                  <element name="linkType" type="xn:linkType" minOccurs="0"/>
                  <element name="protocolName" type="string" minOccurs="0"/>
                  <element name="protocolVersion" type="string" minOccurs="0"/>
                  <element name="userLabel" type="string"/>
                  <element name="zEnd" type="xn:dn"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:Link_HSS_OSASCSASOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element name="Link_CAMELIMSSFAS_HSS"
substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="aEnd" type="xn:dn"/>
                  <element name="linkType" type="xn:linkType" minOccurs="0"/>
                  <element name="protocolName" type="string" minOccurs="0"/>
                  <element name="protocolVersion" type="string" minOccurs="0"/>
                  <element name="userLabel" type="string"/>
                  <element name="zEnd" type="xn:dn"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:Link_CAMELIMSSFAS_HSSOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element name="Link_AS_ICSCF" substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="aEnd" type="xn:dn"/>
                  <element name="linkType" type="xn:linkType" minOccurs="0"/>
                  <element name="protocolName" type="string" minOccurs="0"/>
                  <element name="protocolVersion" type="string" minOccurs="0"/>
                  <element name="userLabel" type="string"/>
                  <element name="zEnd" type="xn:dn"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="im:Link_AS_ICSCFOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

```

```

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

<element name="Link_PCSCF_ECSCF"
substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
>
<complexType>
  <complexContent>
    <extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
            <all>
              <element name="aEnd" type="xn:dn"/>
              <element name="linkType" type="xn:linkType" minOccurs="0"/>
              <element name="protocolName" type="string" minOccurs="0"/>
              <element name="protocolVersion" type="string" minOccurs="0"/>
              <element name="userLabel" type="string"/>
              <element name="zEnd" type="xn:dn"/>
            </all>
          </complexType>
        </element>
        <choice minOccurs="0" maxOccurs="unbounded">
          <element ref="im:Link_PCSCF_ECSCFOptionallyContainedNrmClass"/>
          <element ref="xn:VsDataContainer"/>
        </choice>
      </sequence>
    </extension>
  </complexContent>
</complexType>
</element>

<element name="Link_BGCF_ECSCF"
substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
>
<complexType>
  <complexContent>
    <extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
            <all>
              <element name="aEnd" type="xn:dn"/>
              <element name="linkType" type="xn:linkType" minOccurs="0"/>
              <element name="protocolName" type="string" minOccurs="0"/>
              <element name="protocolVersion" type="string" minOccurs="0"/>
              <element name="userLabel" type="string"/>
              <element name="zEnd" type="xn:dn"/>
            </all>
          </complexType>
        </element>
        <choice minOccurs="0" maxOccurs="unbounded">
          <element ref="im:Link_BGCF_ECSCFOptionallyContainedNrmClass"/>
          <element ref="xn:VsDataContainer"/>
        </choice>
      </sequence>
    </extension>
  </complexContent>
</complexType>
</element>

<element name="Link_MGCF_ECSCF"
substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
>
<complexType>
  <complexContent>
    <extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
            <all>
              <element name="aEnd" type="xn:dn"/>
              <element name="linkType" type="xn:linkType" minOccurs="0"/>
              <element name="protocolName" type="string" minOccurs="0"/>
            </all>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>
</element>

```

```

        <element name="protocolVersion" type="string" minOccurs="0"/>
        <element name="userLabel" type="string"/>
        <element name="zEnd" type="xn:dn"/>
    </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
    <element ref="im:Link_MGCF_ECSCFOptionallyContainedNrmClass"/>
    <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="ASFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="SIPASFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="OSASCSASFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="CAMELIMSSFASFunctionOptionallyContainedNrmClass" type="xn:NrmClass"
abstract="true"/>
<element name="BGCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
    <element name="ICSCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="IMSMGWFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="MGCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="MRFCFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="MRFPFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="PCSCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="SCSCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="SLFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
    <element name="ECSCFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_AS_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_AS_SLFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_BGCF_BGCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_BGCF_MGCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_BGCF_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_ICSCF_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_ICSCF_MGCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_ICSCF_PCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_PCSCF_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_ICSCF_SLFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_IMSMGW_MGCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_MRFC_MRFPOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_MRFC_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_SCSCF_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_SCSCF_SLFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="HSSFFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_HSS_SCSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_HSS_ICSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_HSS_SIPASOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_HSS_OSASCSASOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_CAMELIMSSFAS_HSSOptionallyContainedNrmClass" type="xn:NrmClass"
abstract="true"/>
<element name="Link_AS_ICSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_PCSCF_ECSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_BGCF_ECSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="Link_MGCF_ECSCFOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
</schema>

```

---

## Annex C (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2014-06	SA#64	SP-140332	001	-	Upgrade W3C XML Schema version from 1.0 to 1.1	11.0.0	11.1.0
		SP-140360	002	-	remove the feature support statements		

---

# History

<b>Document history</b>		
V11.0.0	January 2013	Publication
V11.1.0	July 2014	Publication