

ETSI TS 128 653 V14.0.0 (2017-04)



**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Universal Terrestrial Radio Access Network (UTRAN)
Network Resource Model (NRM)
Integration Reference Point (IRP);
Solution Set (SS) definitions
(3GPP TS 28.653 version 14.0.0 Release 14)**



Reference

RTS/TSGS-0528653ve00

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/standards-search>

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

<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

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

<https://portal.etsi.org/People/CommiteeSupportStaff.aspx>

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 2017.

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.

oneM2M logo is protected for the benefit of its Members

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 (<https://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**", "**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
Introduction	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
Annex A (normative): CORBA Solution Set	9
A.0 Introduction	9
A.1 Architectural features	9
A.1.0 General	9
A.1.1 Syntax for Distinguished Names	9
A.1.2 Rules for NRM extensions	9
A.2 Mapping	10
A.2.1 General mapping	10
A.2.2 Information Object Class (IOC) mapping	10
A.2.2.1 IOC RncFunction	10
A.2.2.2 IOC UtranGenericCell	11
A.2.2.3 IOC NodeBFunction	13
A.2.2.4 IOC IubLink.....	13
A.2.2.5 IOC ExternalUtranGenericCell.....	14
A.2.2.6 Void	15
A.2.2.7 IOC ExternalRncFunction	15
A.2.2.8 UtranCellFDD.....	15
A.2.2.9 UtranCellTDD	16
A.2.2.10 UtranCellTDDLcr	16
A.2.2.11 UtranCellTDDHcr	17
A.2.2.12 ExternalUtranCellFDD	17
A.2.2.13 ExternalUtranCellTDD	18
A.2.2.14 ExternalUtranCellTDDHcr.....	18
A.2.2.15 ExternalUtranCellTDDLcr	18
A.2.2.16 IOC UtranRelation.....	19
A.2.2.17 IOC EP_IuCS.....	19
A.2.2.18 IOC EP_IuPS	19
A.2.2.19 IOC EP_Iur	19
A.3 Solution Set definitions	20
A.3.1 IDL definition structure	20
A.3.2 IDL specification "UtranNetworkResourcesNRMDefs.idl"	20
Annex B (normative): XML Definitions	27
B.0 Introduction	27
B.1 Architectural features	27
B.1.0 General	27
B.1.1 Syntax for Distinguished Names	27

B.2	Mapping	27
B.2.1	General mapping.....	27
B.2.2	Information Object Class (IOC) mapping.....	27
B.3	Solution Set definitions	28
B.3.1	XML definition structure.....	28
B.3.2	Graphical Representation	28
B.3.3	XML schema "utranNrm.xsd"	29
Annex C (informative): Change history		49
History		50

Foreword

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

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

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 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; as identified below:

- 28.651: "UTRAN Network Resource Model (NRM) Integration Reference Point (IRP); Requirements".
- 28.652: "UTRAN Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".
- 28.653: "UTRAN Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definition".**

1 Scope

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

This Solution Set specification is related to 3GPP TS 28.652 V13.0.X [4].

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
- [2] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [3] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".
- [4] 3GPP TS 28.652: "Telecommunication management; Universal Terrestrial Radio Access Network (UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".
- [5] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".
- [6] 3GPP TS 32.306: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP); Solution Set (SS) definitions".
- [7] 3GPP TS 32.616: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Solution Set (SS) definitions".
- [8] W3C REC-xml11-20060816: "Extensible Markup Language (XML) 1.1 (Second Edition)".
- [9] Void
- [10] W3C XML Schema Definition Language (XSD) 1.1 Part 1: Structures.
- [11] W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.
- [12] W3C REC-xml-names-20060816: "Namespaces in XML 1.1 (Second Edition)".
- [13] 3GPP TS 28.623: "Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definition".

3 Definitions and abbreviations

3.1 Definitions

For terms and definitions please refer to 3GPP TS 32.101 [1], 3GPP TS 32.102 [2], 3GPP TS 32.600 [3] and 3GPP TS 28.652 [4].

XML file: See definition of [13].

XML document: See definition of [13].

XML declaration: See definition of [13].

XML element: See definition of [13].

empty XML element: See definition of [13].

XML content (of an XML element): See definition of [13].

XML start-tag: See definition of [13].

XML end-tag: See definition of [13].

XML empty-element tag: See definition of [13].

XML attribute specification: See definition of [13].

DTD: See definition of [13].

XML schema: See definition of [13].

XML namespace: See definition of [13].

XML complex type: See definition of [13].

XML element type: See definition of [13].

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
IS	Information Service
IDL	Interface Definition Language (OMG)
IOC	Information Object Class
IRP	Integration Reference Point
IS	Information Service
MO	Managed Object
MOC	Managed Object Class
NRM	Network Resource Model
OMG	Object Management Group
SIPTO	Selected IP Traffic Offload
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 UTRAN NRM IRP Solution Set Definitions:

- 3GPP UTRAN NRM IRP CORBA SS (Annex A)
- 3GPP UTRAN NRM IRP XML Definitions (Annex B)

Annex A (normative): CORBA Solution Set

A.0 Introduction

This annex contains the CORBA Solution Set for the IRP whose semantics is specified in UTRAN NRM IRP: Information Service (TS 28.652 [4]).

A.1 Architectural features

A.1.0 General

The overall architectural feature of UTRAN Network Resources IRP is specified in 3GPP TS 28.652 [4]. This clause specifies features that are specific to the CORBA SS.

A.1.1 Syntax for Distinguished Names

See clause A.1.1 of [13].

A.1.2 Rules for NRM extensions

See clause A.1.2 of [13].

A.2 Mapping

A.2.1 General mapping

See clause A.1.2.1 of [13].

A.2.2 Information Object Class (IOC) mapping

A.2.2.1 IOC RncFunction

Mapping from NRM IOC RncFunction attributes to SS equivalent MOC RncFunction attributes

IS Attributes	SS Attributes	SS Type
mcc	mcc	long
mnc	mnc	long
rncId	rncId	long
sipToSupported	sipToSupported	short
tceIDMappingInfoList	tceIDMappingInfoList	GenericNRMAAttributeTypes:: TceIDMappingInfoListType
sharNetTceMappingInfoList	sharNetTceMappingInfoList	genericEUTRANNRMAAttributeTypes:: SharNetTceMappingInfo

A.2.2.2 IOC UtranGenericCell

Mapping from NRM IOC UtranGenericCell attributes and associations to SS equivalent MOC UtranGenericCell attributes

IS Attributes	SS Attributes	SS Type
cId	cId	long
localCellId	localCellId	long
relatedAntennaList	relatedAntennaList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet
maximumTransmissionPower	maximumTransmissionPower	short
lac	lac	long
pichPower	pichPower	float
pchPower	pchPower	float
fachPower	fachPower	float
rac	rac	long
sac	sac	long
uraList	uraList	GenericNetworkResourcesIRPSystem::AttributeTypes::LongSet
associatedWith/ utranCell-IubLink	utranCellIubLink	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference
cellMode	cellMode	GenericNRMAAttributeTypes::CellModeEnumType
operationalState	operationalState	StateManagementIRPOptConstDefs::OperationalStateTypeOpt
hsFlag	hsFlag	short
hsEnable	hsEnable	short
numOfHspdschs	numOfHspdschs	short
numOfHsscchs	numOfHsscchs	short
frameOffset	frameOffset	short
cellIndividualOffset	cellIndividualOffset	float
hcsPrio	hcsPrio	short
maximumAllowedULTxPower	maximumAllowedULTxPower	short
snaInformation	snaInformation	GenericNRMAAttributeTypes::snaInformationType
qrxlevMin	qrxlevMin	short
deltaQrxlevmin	deltaQrxlevmin	short
qhcs	qhcs	short
penaltyTime	penaltyTime	short
referenceTimeDifferenceToCell	referenceTimeDifferenceToCell	short
readSFNIndicator	readSFNIndicator	Boolean
restrictionStateIndicator	restrictionStateIndicator	GenericNRMAAttributeTypes::restrictionStateEnumType
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNRMAAttributeTypes::dpcModeChangeSupportEnumType
relatedTmaList	relatedTmaList	GenericNetworkResourceIRPSystem::AttributeTypes::MOReferenceSet
relatedSectorEquipment	relatedSectorEquipment	GenericNetworkResourceIRPSystem::AttributeTypes::MOReference
nsPlmnIdList	nsPlmnIdList	GenericNRMAAttributeTypes::NsPlmnIdListType

NOTE 1: For all support qualifiers with the value "O", see attribute constraints in TS28.652 [4].
 NOTE 2: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].
 NOTE 3: For all support qualifiers with the value "CM" see attribute constraints in TS 28.652 [4].

A.2.2.3 IOC NodeBFunction

Mapping from NRM IOC NodeBFunction attributes and associations to SS equivalent MOC NodeBFunction attributes

IS Attributes	SS Attributes	SS Type
connectedTo/ nodeBFunction-IubLink	nodeBFunctionIubLink	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReference

A.2.2.4 IOC IubLink

Mapping from NRM IOC IubLink attributes and associations to SS equivalent MOC IubLink attributes

IS Attributes	SS Attributes	SS Type
AssociatedWith/ IubLink-UtranCell	IubLinkUtranCell	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReferenceSet
ConnectedTo/ IubLink-NodeBFunction	IubLinkNodeBFunction	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReference
AssociatedWith1/ IubLink-ATMChannelTerminationPoint	IubLinkATMChannelTermination Point	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReference

A.2.2.5 IOC ExternalUtranGenericCell

Mapping from NRM IOC ExternalUtranGenericCell attributes and associations to SS equivalent MOC ExternalUtranGenericCell attributes

IS Attributes	SS Attributes	SS Type
cId	cId	long
mcc	mcc	short
mnc	mnc	short
rncId	rncId	long
cellMode	cellMode	GenericNRMAAttributeTypes:: CellModeEnumType
lac	lac	long
rac	rac	long
controllingRnc	controllingRnc	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReference
hsFlag	hsFlag	short
frameOffset	frameOffset	short
cellIndividualOffset	cellIndividualOffset	long
hcsPrio	hcsPrio	short
maximumAllowedULTxPower	maximumAllowedULTxPower	short
qrxlevMin	qrxlevMin	short
deltaQrxlevmin	deltaQrxlevmin	short
qhcs	qhcs	short
penaltyTime	penaltyTime	short
referenceTimeDifferenceToCell	referenceTimeDifferenceToCell	short
readSFNIndicator	readSFNIndicator	Boolean
restrictionStateIndicator	restrictionStateIndicator	GenericNRMAAttributeTypes:: restrictionStateEnumType
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNRMAAttributeTypes:: dpcModeChangeSupportEnumType
snaInformation	snaInformation	GenericNRMAAttributeTypes:: snaInformationType
NOTE 1: For all support qualifiers with the value "O", see attribute constraints in TS 28.652 [4].		
NOTE 2: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		
NOTE 3: For all support qualifiers with the value "CM" see attribute constraints in TS 28.652 [4].		

A.2.2.6 Void

A.2.2.7 IOC ExternalRncFunction

Mapping from NRM IOC ExternalRncFunction attributes and associations to SS equivalent MOC ExternalRncFunction attributes

IS Attributes	SS Attributes	SS Type
mcc	mcc	long
mnc	mnc	long
rncId	rncId	long
controlledCellList	controlledCellList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet

NOTE: For all support qualifiers with the value "O", see attribute constraints in TS 28.652 [4].

A.2.2.8 UtranCellFDD

Mapping from NRM IOC UtranCellFDD attributes and associations to SS equivalent MOC UtranCellFDD attributes

IS Attributes	SS Attributes	SS Type
uarfcnUl	uarfcnUl	short
uarfcnDl	uarfcnDl	short
primaryScramblingCode	primaryScramblingCode	short
primaryCpichPower	primaryCpichPower	float
primarySchPower	primarySchPower	float
secondarySchPower	secondarySchPower	float
bchPower	bchPower	float
aichPower	aichPower	float
qqualMin	qqualMin	float
cellCapabilityContainerFDD	cellCapabilityContainerFDD	FDDNetworkResourceMAttributeTypes::CellCapabilityContainerFDDType
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAttributeTypes::txDiversityIndicatorEnumType
temporaryOffset1	temporaryOffset1	short
temporaryOffset2	temporaryOffset2	short
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAttributeTypes::sttdSupportEnumType
closedLoopModelSupportIndicator	closedLoopModelSupportIndicator	FDDNetworkResourceMAttributeTypes::closedLoopMode1EnumType

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.2.2.9 UtranCellTDD

Mapping from NRM IOC UtranCellTDD attributes and associations to SS equivalent MOC UtranCellTDD attributes

IS Attributes	SS Attributes	SS Type
uarfcn	uarfcn	short
cellParameterId	cellParameterId	long
primaryCcpchPower	primaryCcpchPower	float
cellCapabilityContainerTDD	cellCapabilityContainerTDD	TDDNetworkResourceMAttributeTypes:: cellCapabilityContainerTDDType
sctdIndicator	sctdIndicator	TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType
dpchConstantValue	dpchConstantValue	long
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.10 UtranCellTDDLcr

Mapping from NRM IOC UtranCellTDDLcr attributes and associations to SS equivalent MOC UtranCellTDDLcr attributes

IS Attributes	SS Attributes	SS Type
uarfcnLCRList	uarfcnLCRList	TDDNRMAAttributeTypes:: UarfcnLCRListConfigStructType
dwPchPower	dwPchPower	float
fpachPower	fpachPower	float
tstdIndicator	tstdIndicator	TDDNRMAAttributeTypes:: tstdIndicatorEnumType
timeSlotLCRList	timeSlotLCRList	TDDNRMAAttributeTypes:: TimeSlotListConfigStructType
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.11 UtranCellTDDHcr

Mapping from NRM IOC UtranCellTDDHcr attributes and associations to SS equivalent MOC UtranCellTDDHcr attributes

IS Attributes	SS Attributes	SS Type
schPower	schPower	float
temporaryOffset1	temporaryOffset1	short
syncCase	syncCase	short
timeSlotForSch	timeSlotForSch	short
schTimeSlot	schTimeSlot	short
timeSlotHCRList	timeSlotHCRList	TDDNRMAAttributeTypes:: TimeSlotListConfigStructType

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.2.2.12 ExternalUtranCellFDD

Mapping from NRM IOC ExternalUtranCellFDD attributes and associations to SS equivalent MOC ExternalUtranCellFDD attributes

IS Attributes	SS Attributes	SS Type
uarfcnUl	uarfcnUl	short
uarfcnDl	uarfcnDl	short
primaryScramblingCode	primaryScramblingCode	short
primaryCpichPower	primaryCpichPower	float
qqualMin	qqualMin	long
cellCapabilityContainerFDD	cellCapabilityContainerFDD	FDDNetworkResourceMAAttributeTypes:: CellCapabilityContainerFDDType
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAAttributeTypes:: txDiversityIndicatorEnumType
temporaryOffset1	temporaryOffset1	short
temporaryOffset2	temporaryOffset2	short
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAAttributeTypes:: sttdSupportEnumType

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.2.2.13 ExternalUtranCellTDD

Mapping from NRM IOC ExternalUtranCellTDD attributes and associations to SS equivalent MOC ExternalUtranCellTDD attributes

IS Attributes	SS Attributes	SS Type
uarfcn	uarfcn	short
cellParameterId	cellParameterId	long
primaryCcpchPower	primaryCcpchPower	float
cellCapabilityContainerTDD	cellCapabilityContainerTDD	TDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType
sctdIndicator	sctdIndicator	TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType
dpchConstantValue	dpchConstantValue	long
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.14 ExternalUtranCellTDDHcr

Mapping from NRM IOC ExternalUtranCellTDDHcr attributes and associations to SS equivalent MOC ExternalUtranCellTDDHcr attributes

IS Attributes	SS Attributes	SS Type
temporaryOffset1	temporaryOffset1	short
syncCase	syncCase	short
timeSlotForSch	timeSlotForSch	short
schTimeSlot	schTimeSlot	short
timeSlotHCRLList	timeSlotHCRLList	TDDNRMAAttributeTypes:: TimeSlotListConfigStructType
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.15 ExternalUtranCellTDDLcr

Mapping from NRM IOC ExternalUtranCellTDDLcr attributes and associations to SS equivalent MOC ExternalUtranCellTDDLcr attributes

IS Attributes	SS Attributes	SS Type
tstdIndicator	tstdIndicator	TDDNRMAAttributeTypes:: tstdIndicatorEnumType
timeSlotLCRLList	timeSlotLCRLList	TDDNRMAAttributeTypes:: TimeSlotListConfigStructType
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.16 IOC UtranRelation

Mapping from NRM IOC UtranRelation attributes and associations to SS equivalent MOC UtranRelation attributes

IS Attributes	SS Attributes	SS Type
		string
adjacentCell	adjacentCell	string

A.2.2.17 IOC EP_luCS

Mapping from NRM IOC EP_luCS attributes and associations to SS equivalent MOC EP_luCS attributes

IS Attributes	SS Attributes	SS Type
connMscNumber	connMscNumber	unsigned short

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.2.2.18 IOC EP_luPS

Mapping from NRM IOC EP_luPS attributes and associations to SS equivalent MOC EP_luPS attributes

IS Attributes	SS Attributes	SS Type
connSgsnNumber	connSgsnNumber	unsigned short

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.2.2.19 IOC EP_lur

Mapping from NRM IOC EP_lur attributes and associations to SS equivalent MOC EP_lur attributes

IS Attributes	SS Attributes	SS Type
connectedRncId	connectedRncId	unsigned short

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].

A.3 Solution Set definitions

A.3.1 IDL definition structure

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

A.3.2 IDL specification "UtranNetworkResourcesNRMDefs.idl"

```
//File:UtranNetworkResourcesNRMDefs.idl
#ifndef _UTRANNETWORKRESOURCESNRMDEFS_IDL_
#define _UTRANNETWORKRESOURCESNRMDEFS_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 UtranNetworkResourcesNRMDefs
{
    /**
     * Definitions for MO class RncFunction
     */
    interface RncFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
    {
        const string CLASS = "RncFunction";
        // Attribute Names
        //
        const string mcc= "mcc";
        const string mnc= "mnc";
        const string rncId= "rncId";
        const string siptoSupported= "siptoSupported";
        const string tceIDMappingInfoList= "tceIDMappingInfoList";
        const string sharNetTceMappingInfoList= "sharNetTceMappingInfoList";
    };
    /**
     * Definitions for MO class UtranGenericCell
     */
    interface UtranGenericCell : GenericNetworkResourcesNRMDefs::ManagedFunction
    {
        const string CLASS = "UtranGenericCell";
        // Attribute Names
        //
        const string utranCellIubLink = "utranCellIubLink";
        const string cId= "cId";
        const string localCellId= "localCellId";
        const string maximumTransmissionPower= "maximumTransmissionPower";
        const string relatedAntennaList= "relatedAntennaList";
        const string primarySchPower= "primarySchPower";
        const string secondarySchPower= "secondarySchPower";
        const string bchPower= "bchPower";
        const string fpachPower= "fpachPower";
        const string pichPower= "pichPower";
        const string pchPower= "pchPower";
        const string fachPower= "fachPower";
        const string cellMode = "cellMode";

        const string lac= "lac";
        const string rac= "rac";
        const string sac= "sac";
        const string uraList= "uraList";
        const string operationalState = "operationalState";
        const string relatedTmaList = "relatedTmaList";
        const string hsFlag = "hsFlag";
        const string hsEnable = "hsEnable";
        const string numOfHspdschs = "numOfHspdschs";
        const string numOfHsscchs = "numOfHsscchs";
        const string snaInformation = "snaInformation";
        const string frameOffset = "frameOffset";
        const string cellIndividualOffset = "cellIndividualOffset";
        const string hcsPrio = "hcsPrio";
    };
};

```

```

    const string maximumAllowedULTxPower = "maximumAllowedULTxPower";
    const string qrxlevMin = "qrxlevMin";
    const string deltaQrxlevmin = "deltaQrxlevmin";
    const string qhcs = "qhcs";
    const string penaltyTime = "penaltyTime";
    const string referenceTimeDifferenceToCell = "referenceTimeDifferenceToCell";
    const string readSFNIndicator = "readSFNIndicator";
    const string restrictionStateIndicator = "restrictionStateIndicator";
    const string dpcModeChangeSupportIndicator = "dpcModeChangeSupportIndicator";
    const string nsPlmnIdList = "nsPlmnIdList";
    const string relatedSectorEquipment = "relatedSectorEquipment";
};

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

/**
 * Definitions for MO class IubLink
 */
interface IubLink : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "IubLink";
    // Attribute Names
    //
    const string iubLinkNodeBFunction = "iubLinkNodeBFunction";
    const string iubLinkUtranCell = "iubLinkUtranCell";
    const string iubLinkATMChannelTerminationPoint = "iubLinkATMChannelTerminationPoint";
};

/**
 * Definitions for MO class UtranRelation
 */
interface UtranRelation : GenericNetworkResourcesNRMDefs::Top
{
    const string CLASS = "UtranRelation";
    // Attribute Names
    //
    const string id = "id";
    const string adjacentCell = "adjacentCell";
};

/**
 * Definitions for MO class ExternalUtranGenericCell
 */
interface ExternalUtranGenericCell : GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "ExternalUtranGenericCell";
    // Attribute Names
    //
    const string cId= "cId";
    const string mcc= "mcc";
    const string mnc= "mnc";
    const string rncId= "rncId";
    const string cellMode = "cellMode";
    const string uarfcn= "uarfcn";
    const string cellParameterId= "cellParameterId";
    const string lac= "lac";
    const string rac= "rac";
    const string controllingRnc = "controllingRnc";
    const string hsFlag = "hsFlag";
    const string frameOffset = "frameOffset";
    const string cellIndividualOffset = "cellIndividualOffset";
    const string hcsPrio = "hcsPrio";
    const string maximumAllowedULTxPower = "maximumAllowedULTxPower";
    const string qrxlevMin = "qrxlevMin";
    const string deltaQrxlevmin = "deltaQrxlevmin";
    const string qhcs = "qhcs";
    const string penaltyTime = "penaltyTime";
    const string referenceTimeDifferenceToCell = "referenceTimeDifferenceToCell";
};

```

```

    const string readSFNIndicator = "readSFNIndicator";
    const string restrictionStateIndicator = "restrictionStateIndicator";
    const string dpcModeChangeSupportIndicator = "dpcModeChangeSupportIndicator";
};
/**
 * Definitions for MO class ExternalRncFunction
 */
interface ExternalRncFunction :
    GenericNetworkResourcesNRMDefs::ManagedFunction
{
    const string CLASS = "ExternalRncFunction";
    // Attribute Names
    //
    const string mcc = "mcc";
    const string mnc = "mnc";
    const string rncId = "rncId";
    const string controlledCellList = "controlledCellList";
};

/**
 * Definitions for MO class UtranCellFDD
 */
interface UtranCellFDD : UtranGenericCell
{
    const string CLASS = "UtranCellFDD";
    // Attribute Names
    //
    const string uarfcnUl = "uarfcnUl";
    const string uarfcnDl = "uarfcnDl";
    const string primaryScramblingCode = "primaryScramblingCode";
    const string primaryCpichPower = "primaryCpichPower";
    const string primarySchPower = "primarySchPower";
    const string secondarySchPower = "secondarySchPower";
    const string bchPower = "bchPower";
    const string aichPower = "aichPower";
    const string qqualMin = "qqualMin";
    const string cellCapabilityContainerFDD = "cellCapabilityContainerFDD";
    const string txDiversityIndicator = "txDiversityIndicator";
    const string temporaryOffset1 = "temporaryOffset1";
    const string temporaryOffset2 = "temporaryOffset2";
    const string sttdSupportIndicator = "sttdSupportIndicator";
    const string closedLoopModelSupportIndicator = "closedLoopModelSupportIndicator";
};

/**
 * Definitions for MO class UtranCellTDD
 */
interface UtranCellTDD : UtranGenericCell
{
    const string CLASS = "UtranCellTDD";
    // Attribute Names
    //
    const string uarfcn = "uarfcn";
    const string cellParameterId = "cellParameterId";
    const string primaryCcpchPower = "primaryCcpchPower";
    const string cellCapabilityContainerTDD = "cellCapabilityContainerTDD";
    const string sctdIndicator = "sctdIndicator";
    const string dpchConstantValue = "dpchConstantValue";
};

/**
 * Definitions for MO class UtranCellTDDLcr
 */
interface UtranCellTDDLcr : UtranCellTDD
{
    const string CLASS = "UtranCellTDDLcr";
    // Attribute Names
    //
    const string uarfcnLCRList = "uarfcnLCRList";
    const string fpachPower = "fpachPower";
    const string dwPchPower = "dwPchPower";
    const string tstdIndicator = "tstdIndicator";
    const string timeSlotLCRList = "timeSlotLCRList";
};

/**
 * Definitions for MO class UtranCellTDDHcr
 */
interface UtranCellTDDHcr : UtranCellTDD

```

```

{
  const string CLASS = "UtranCellTDDHcr";
  // Attribute Names
  //
  const string schPower = "schPower";
  const string temporaryOffset1 = "temporaryOffset1";
  const string syncCase = "syncCase";
  const string timeSlotForSch = "timeSlotForSch";
  const string schTimeSlot = "schTimeSlot";
  const string timeSlotHCRLList = "timeSlotHCRLList";
};
/**
 * Definitions for MO class ExternalUtranCellFDD
 */
interface ExternalUtranCellFDD : ExternalUtranGenericCell
{
  const string CLASS = "ExternalUtranCellFDD";
  // Attribute Names
  //
  const string uarfcnUl = "uarfcnUl";
  const string uarfcnDl = "uarfcnDl";
  const string primaryScramblingCode = "primaryScramblingCode";
  const string primaryCpichPower = "primaryCpichPower";
  const string qqualMin = "qqualMin";
  const string cellCapabilityContainerFDD = "cellCapabilityContainerFDD";
  const string txDiversityIndicator = "txDiversityIndicator";
  const string temporaryOffset1 = "temporaryOffset1";
  const string temporaryOffset2 = "temporaryOffset2";
  const string sttdSupportIndicator = "sttdSupportIndicator";
  const string closedLoopModelSupportIndicator = "closedLoopModelSupportIndicator";
};
/**
 * Definitions for MO class ExternalUtranCellTDD
 */
interface ExternalUtranCellTDD : ExternalUtranGenericCell
{
  const string CLASS = "ExternalUtranCellTDD";
  // Attribute Names
  //
  const string uarfcn = "uarfcn";
  const string cellParameterId = "cellParameterId";
  const string primaryCpchPower = "primaryCpchPower";
  const string cellCapabilityContainerTDD = "cellCapabilityContainerTDD";
  const string sctdIndicator = "sctdIndicator";
  const string dpchConstantValue = "dpchConstantValue";
};
/**
 * Definitions for MO class ExternalUtranCellTDDHcr
 */
interface ExternalUtranCellTDDHcr : ExternalUtranCellTDD
{
  const string CLASS = "ExternalUtranCellTDDHcr";
  // Attribute Names
  //
  const string temporaryOffset1 = "temporaryOffset1";
  const string syncCase = "syncCase";
  const string timeSlotForSch = "timeSlotForSch";
  const string schTimeSlot = "schTimeSlot";
  const string timeSlotHCRLList = "timeSlotHCRLList";
};
/**
 * Definitions for MO class ExternalUtranCellTDDLcr
 */
interface ExternalUtranCellTDDLcr : ExternalUtranCellTDD
{
  const string CLASS = "ExternalUtranCellTDDLcr";
  // Attribute Names
  //
  const string tstdIndicator = "tstdIndicator";
  const string timeSlotLCRLList = "timeSlotLCRLList";
};
/**
 * Definitions for MO class EP_IuCS
 */
interface EP_IuCS : GenericNetworkResourcesNRMDefs::EP_RP
{

```



```

    const string CLASS = "EP_IuCS";
    // Attribute Name
    //
    const string connMscNumber = "connMscNumber";
};

/**
 * Definitions for MO class EP_IuPS
 */

interface EP_IuPS : GenericNetworkResourcesNRMDefs::EP_RP
{
    const string CLASS = "EP_IuPS";
    // Attribute Name
    //
    const string connSgsnNumber= "connSgsnNumber";
};

/**
 * Definitions for MO class EP_Iur
 */

interface EP_Iur : GenericNetworkResourcesNRMDefs::EP_RP
{
    const string CLASS = "EP_Iur";
    // Attribute Name
    //
    const string connectedRncId= "connectedRncId";
};

};

/**
 * This module adds datatype definitions for both FDD and TDD mode
 * attributes used in the NRM which are not the basic datatypes
 * already defined in CORBA.
 */
module GenericNRMAAttributeTypes
{
    enum CellModeEnumType
    {
        FDDMode,
        TDDMode_1_28Mcps,
        TDDMode_3_84Mcps
    };
    enum RestrictionStateEnumType
    {
        cellReservedForOperatorUse,
        cellAccessible
    };
    enum DpcModeChangeEnumType
    {
        dpcModeChange_supported,
        dpcModeChange_not_supported
    };
    typedef long SNAC;
    struct snaInformationType
    {
        long mcc;
        long mnc;
        sequence<SNAC> snaList;
    };

    struct TceIDMappingInfo
    {
        short tceID;
        string tceIPAddr;
    };

    typedef sequence<TceIDMappingInfo> TceIDMappingInfoListType;

    structNs PlmnIdType
    {
        short mcc;
        short mnc;
    };
    const short NS_PLMNID_LIST_LENGTH = 5;
    typedef sequence<NsPlmnIdType>NsPlmnIdListType;

```

```

};

struct SharNetTceMappingInfo
{
    long PLMNId;
    short tceID;
    string tceIPAddr;
};
typedef sequence<SharNetTceMappingInfo> SharNetTceMappingInfoListType;
};

/**
 * This module adds datatype definitions for FDD mode attributes
 * used in the NRM which are not the basic datatypes already defined
 * in CORBA.
 */
module FDDNRMAAttributeTypes
{
    enum SttdSupportEnumType
    {
        active,
        inactive
    };

    enum txDiversityIndicatorEnumType
    {
        none,
        primaryCpichBroadcastFrom2Antennas,
        sttdAppliedToPrimaryCCPCH,
        tstdAppliedToPrimarySchAndSecondarySch
    };
    enum ClosedLoopModelEnumType
    {
        closedLoopModel_supported,
        closedLoopModel_not_supported
    };

    typedef octet CellCapabilityContainerFDDBit;
    //CellCapabilityContainerFDDBits:
    const unsigned long Flexible_Hard_Split_Support_Indicator = 0;
    const unsigned long Delayed_Activation_Support_Indicator = 1;
    const unsigned long HS_DSCH_Support_Indicator = 2;
    const unsigned long DSCH_Support_Indicator = 3;
    const unsigned long F_DPCH_Support_Indicator = 4;
    const unsigned long E_DCH_Support_Indicator = 5;
    const unsigned long E_DCH_TTI2ms_Support_Indicator = 6;
    const unsigned long E_DCH_2sf2and2sf4_and_all_inferior_SF_Support_Indicator = 7;
    const unsigned long E_DCH_2sf2_and_all_inferior_SF_Support_Indicator = 8;
    const unsigned long E_DCH_2sf4_and_all_inferior_SF_Support_Indicator = 9;
    const unsigned long E_DCH_sf4_and_all_inferior_SF_Support_Indicator = 10;
    const unsigned long E_DCH_sf8_and_all_inferior_SF_Support_Indicator = 11;
    const unsigned long E_DCH_HARQ_IR_Combining_Support_Indicator = 12;
    const unsigned long E_DCH_HARQ_Chase_Combining_Support_Indicator = 13;
    typedef sequence <CellCapabilityContainerFDDBit> CellCapabilityContainerFDDType;
};

/**
 * This module adds datatype definitions for TDD mode attributes
 * used in the NRM which are not the basic datatypes already defined
 * in CORBA.
 */
module TDDNRMAAttributeTypes
{
    enum ActivityStatusType
    {
        active,
        inactive
    };
    typedef ActivityStatusType TstdIndicatorEnumType;          typedef ActivityStatusType
SctdSupportEnumType;
    typedef ActivityStatusType TimeSlotStatusType;

    typedef octet CellCapabilityContainerTDDBit;
    const unsigned long Delayed_Activation_Support_Indicator = 0;
    const unsigned long HS_DSCH_Support_Indicator = 1;
    const unsigned long DSCH_Support_Indicator = 2;
    typedef sequence <CellCapabilityContainerTDDBit> CellCapabilityContainerTDDType;
};

```

```
enum TimeSlotDirectionType
{
    UL,
    DL
};

struct TimeSlotConfigStructType
{
    short timeSlotId;
    TimeSlotDirectionType timeSlotDirection;
    TimeSlotStatusType timeSlotStatus;
};
typedef sequence<TimeSlotConfigStructType> TimeSlotListConfigStructType;

struct UarfcnLCRConfigStructType
{
    short uarfcn;
    TimeSlotListConfigStructType timeSlotLCRList;
};
typedef sequence<UarfcnLCRConfigStructType> UarfcnLCRListConfigStructType;
};
#endif // _UTRANNETWORKRESOURCESNRMDEFS_IDL_
```

Annex B (normative): XML Definitions

B.0 Introduction

This annex contains the XML Definitions for the UTRAN NRM IRP as it applies to Itf-N, in accordance with UTRAN NRM IRP IS definitions [4].

The XML file formats are based on XML [8], XML Schema [10] [11] and XML Namespace [12] standards.

B.1 Architectural features

B.1.0 General

The overall architectural feature of UTRAN Network Resources IRP is specified in 3GPP TS 28.652 [4].

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

B.1.1 Syntax for Distinguished Names

The syntax of a Distinguished Name is defined in 3GPP TS 32.300 [5].

B.2 Mapping

B.2.1 General mapping

An IOC maps to an XML element of the same name as the IOC's name in the IS. An IOC attribute maps to a sub-element of the corresponding IOC's XML element, and the name of this sub-element is the same as the attribute's name in the IS.

B.2.2 Information Object Class (IOC) 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 [7].

Annex B.3.3 of the present document defines the NRM-specific XML schema `utranNrm.xsd` for the UTRAN Network Resources IRP NRM defined in 3GPP TS 28.652 [4].

XML schema `utranNrm.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 [7].

B.3.2 Graphical Representation

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

B.3.3 XML schema "utranNrm.xsd"

```

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

<!--
  3GPP TS 28.653 UTRAN NRM IRP
  Bulk CM Configuration data file NRM-specific XML schema
  utranNrm.xsd
-->

<schema
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn="http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
  xmlns:un="http://www.3gpp.org/ftp/specs/archive/28_series/28.653#utranNrm"
  xmlns:gn="http://www.3gpp.org/ftp/specs/archive/28_series/28.656#geranNrm"
  xmlns:sm="http://www.3gpp.org/ftp/specs/archive/28_series/28.626#stateManagementIRP"

  targetNamespace="http://www.3gpp.org/ftp/specs/archive/28_series/28.653#utranNrm"
  elementFormDefault="qualified">
  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
  />
  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.656#geranNrm"
  />
  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.626#stateManagementIRP"
  />

  <!-- UTRAN Network Resources IRP NRM attribute related XML types -->

  <simpleType name="localCellId">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="268435455"/>
    </restriction>
  </simpleType>

  <simpleType name="cId">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="65535"/>
    </restriction>
  </simpleType>

  <simpleType name="uarfcnAnyMode">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="16383"/>
    </restriction>
  </simpleType>

  <simpleType name="primaryScramblingCode">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="511"/>
    </restriction>
  </simpleType>

  <simpleType name="primaryCpichPower">
    <restriction base="decimal">
      <fractionDigits value="1"/>
      <minInclusive value="-10"/>
      <maxInclusive value="+50"/>
    </restriction>
  </simpleType>

  <simpleType name="maximumTransmissionPower">
    <restriction base="decimal">
      <fractionDigits value="1"/>
      <minInclusive value="0"/>
      <maxInclusive value="50"/>
    </restriction>

```

```
</simpleType>

<simpleType name="primarySchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-35"/>
    <maxInclusive value="+15"/>
  </restriction>
</simpleType>

<simpleType name="secondarySchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-35"/>
    <maxInclusive value="+15"/>
  </restriction>
</simpleType>

<simpleType name="bchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-35"/>
    <maxInclusive value="+15"/>
  </restriction>
</simpleType>

<simpleType name="aichPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-22"/>
    <maxInclusive value="+5"/>
  </restriction>
</simpleType>

<simpleType name="fpachPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-150"/>
    <maxInclusive value="+400"/>
  </restriction>
</simpleType>

<simpleType name="pichPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-10"/>
    <maxInclusive value="+5"/>
  </restriction>
</simpleType>

<simpleType name="pchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-350"/>
    <maxInclusive value="+150"/>
  </restriction>
</simpleType>

<simpleType name="fachPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-350"/>
    <maxInclusive value="+150"/>
  </restriction>
</simpleType>

<simpleType name="lac">
  <union>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="1"/>
        <maxInclusive value="65533"/>
      </restriction>
    </simpleType>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="65535"/>
        <maxInclusive value="65535"/>
      </restriction>
    </simpleType>
  </union>
</simpleType>
```

```

    </restriction>
  </simpleType>
</union>
</simpleType>

<simpleType name="rac">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="255"/>
  </restriction>
</simpleType>

<simpleType name="sac">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="65535"/>
  </restriction>
</simpleType>

<complexType name="uraList">
  <sequence>
    <element name="ura" maxOccurs="8">
      <simpleType>
        <restriction base="integer">
          <minInclusive value="0"/>
          <maxInclusive value="65535"/>
        </restriction>
      </simpleType>
    </element>
  </sequence>
</complexType>

<simpleType name="cellMode">
  <restriction base="string">
    <enumeration value="FDDMode"/>
    <enumeration value="3-84McpsTDDMode"/>
    <enumeration value="1-28McpsTDDMode"/>
  </restriction>
</simpleType>

<simpleType name="cellParameterId">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="127"/>
  </restriction>
</simpleType>

<simpleType name="primaryCcpchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-15"/>
    <maxInclusive value="+40"/>
  </restriction>
</simpleType>

<simpleType name="dwPchPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-15"/>
    <maxInclusive value="+40"/>
  </restriction>
</simpleType>

<simpleType name="schPower">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-35"/>
    <maxInclusive value="+15"/>
  </restriction>
</simpleType>

<complexType name="timeSlotLCRLList">
  <sequence>
    <element name="timeSlot" maxOccurs="7">
      <complexType>
        <all>
          <element name="timeSlotId" minOccurs="1">
            <simpleType>

```



```

        <restriction base="integer">
          <minInclusive value="0"/>
          <maxInclusive value="6"/>
        </restriction>
      </simpleType>
    </element>
    <element name="timeSlotDirection" minOccurs="1">
      <simpleType>
        <restriction base="string">
          <enumeration value="UL"/>
          <enumeration value="DL"/>
        </restriction>
      </simpleType>
    </element>
    <element name="timeSlotStatus" minOccurs="1">
      <simpleType>
        <restriction base="string">
          <enumeration value="Active"/>
          <enumeration value="Not-Active"/>
        </restriction>
      </simpleType>
    </element>
  </all>
</complexType>
</element>
</sequence>
</complexType>

<complexType name="timeSlotHCRLList">
  <sequence>
    <element name="timeSlot" maxOccurs="15">
      <complexType>
        <all>
          <element name="timeSlotId" minOccurs="1">
            <simpleType>
              <restriction base="integer">
                <minInclusive value="0"/>
                <maxInclusive value="14"/>
              </restriction>
            </simpleType>
          </element>
          <element name="timeSlotDirection" minOccurs="1">
            <simpleType>
              <restriction base="string">
                <enumeration value="UL"/>
                <enumeration value="DL"/>
              </restriction>
            </simpleType>
          </element>
          <element name="timeSlotStatus" minOccurs="1">
            <simpleType>
              <restriction base="string">
                <enumeration value="Active"/>
                <enumeration value="Not-Active"/>
              </restriction>
            </simpleType>
          </element>
        </all>
      </complexType>
    </element>
  </sequence>
</complexType>

<simpleType name="restrictionStateIndicator">
  <restriction base="string">
    <enumeration value="cellReservedForOperatorUse"/>
    <enumeration value="cellAccessible"/>
  </restriction>
</simpleType>

<simpleType name="dpcModeChangeSupport">
  <restriction base="string">
    <enumeration value="dpcModeChangeSupported"/>
    <enumeration value="dpcModeChangeNotSupported"/>
  </restriction>
</simpleType>

```

```
<simpleType name="sttdSupport">
  <restriction base="string">
    <enumeration value="active"/>
    <enumeration value="inactive"/>
  </restriction>
</simpleType>

<simpleType name="closedLoopModel">
  <restriction base="string">
    <enumeration value="closedLoopModelSupported"/>
    <enumeration value="closedLoopModelNotSupported"/>
  </restriction>
</simpleType>

<simpleType name="frameOffset">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="255"/>
  </restriction>
</simpleType>

<simpleType name="cellIndividualOffset">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-10"/>
    <maxInclusive value="10"/>
  </restriction>
</simpleType>

<simpleType name="hcsPrio">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="7"/>
  </restriction>
</simpleType>

<simpleType name="maximumAllowedULTxPower">
  <restriction base="integer">
    <minInclusive value="-50"/>
    <maxInclusive value="33"/>
  </restriction>
</simpleType>

<simpleType name="qrxlevMin">
  <restriction base="integer">
    <minInclusive value="-115"/>
    <maxInclusive value="-25"/>
  </restriction>
</simpleType>

<simpleType name="deltaQrxlevmin">
  <restriction base="integer">
    <minInclusive value="-4"/>
    <maxInclusive value="-2"/>
  </restriction>
</simpleType>

<simpleType name="qhcs">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="99"/>
  </restriction>
</simpleType>

<simpleType name="penaltyTime">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="60"/>
  </restriction>
</simpleType>

<simpleType name="referenceTimeDifferenceToCell">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="38400"/>
  </restriction>
</simpleType>
```

```

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

<complexType name="snaList">
  <sequence>
    <element name="snac" maxOccurs="65535">
      <simpleType>
        <restriction base="integer">
          <minInclusive value="1"/>
          <maxInclusive value="65536"/>
        </restriction>
      </simpleType>
    </element>
  </sequence>
</complexType>

<complexType name="snaInformation">
  <sequence>
    <element name="mcc">
      <simpleType>
        <restriction base="integer">
          <minInclusive value="0"/>
          <maxInclusive value="999"/>
        </restriction>
      </simpleType>
    </element>
    <element name="mnc">
      <simpleType>
        <restriction base="integer">
          <enumeration value="0"/>
          <enumeration value="999"/>
        </restriction>
      </simpleType>
    </element>
    <element name="snaList" type="un:snaList"/>
  </sequence>
</complexType>

<simpleType name="qqualMin">
  <restriction base="integer">
    <minInclusive value="-24"/>
    <maxInclusive value="0"/>
  </restriction>
</simpleType>

<simpleType name="temporaryOffset1">
  <restriction base="integer">
    <minInclusive value="3"/>
    <maxInclusive value="21"/>
  </restriction>
</simpleType>

<simpleType name="temporaryOffset2">
  <restriction base="integer">
    <minInclusive value="2"/>
    <maxInclusive value="12"/>
  </restriction>
</simpleType>

<simpleType name="txDiversityIndicator">
  <restriction base="string">
    <enumeration value="none"/>
    <enumeration value="PrimaryCpichBroadcastFrom2Antennas"/>
    <enumeration value="StdAppliedToPrimaryCCPCH"/>
    <enumeration value="TstdAppliedToPrimarySchAndSecondarySch"/>
  </restriction>
</simpleType>

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

```

```

    <all>
      <element name="Flexible_Hard_Split_Support_Indicator" minOccurs="0"/>
      <element name="Delayed_Activation_Support_Indicator" minOccurs="0"/>
      <element name="HS_DSCH_Support_Indicator" minOccurs="0"/>
      <element name="DSCH_Support_Indicator" minOccurs="0"/>
      <element name="F_DPCH_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_TTI2ms_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_2sf2_and_all_inferior_SF_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_2sf4_and_all_inferior_SF_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_sf4_and_all_inferior_SF_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_sf8_and_all_inferior_SF_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_HARQ_IR_Combining_Support_Indicator" minOccurs="0"/>
      <element name="E_DCH_HARQ_Chase_Combining_Support_Indicator" minOccurs="0"/>
    </all>
  </complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>

<simpleType name="sctdIndicator">
  <restriction base="string">
    <enumeration value="active"/>
    <enumeration value="inactive"/>
  </restriction>
</simpleType>

<simpleType name="dpchConstantValue">
  <restriction base="integer">
    <minInclusive value="-10"/>
    <maxInclusive value="10"/>
  </restriction>
</simpleType>

<complexType name="cellCapabilityContainerTDD">
  <complexContent>
    <extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
            <all>
              <element name="Delayed_Activation_Support_Indicator" minOccurs="0"/>
              <element name="HS_DSCH_Support_Indicator" minOccurs="0"/>
              <element name="DSCH_Support_Indicator" minOccurs="0"/>
            </all>
          </complexType>
        </element>
        <choice minOccurs="0" maxOccurs="unbounded">
          <element ref="xn:VsDataContainer"/>
        </choice>
      </sequence>
    </extension>
  </complexContent>
</complexType>

<simpleType name="tstdIndicator">
  <restriction base="string">
    <enumeration value="active"/>
    <enumeration value="inactive"/>
  </restriction>
</simpleType>

<simpleType name="timeSlotForSch">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="14"/>
  </restriction>
</simpleType>

<simpleType name="schTimeSlot">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="6"/>
  </restriction>
</simpleType>

```

```

    </restriction>
  </simpleType>

  <simpleType name="syncCase">
    <restriction base="string">
      <enumeration value="SCH and PCCPCH allocated in a single TS"/>
      <enumeration value="SCH and PCCPCH allocated in two TS, TS#k and TS#k+8"/>
    </restriction>
  </simpleType>

  <simpleType name="hsFlag">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
  </simpleType>

  <simpleType name="hsEnable">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
  </simpleType>

  <simpleType name="numOfHspdschs">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="95"/>
    </restriction>
  </simpleType>

  <complexType name="NsPlmnId">
    <sequence>
      <element name="mcc" type="short"/>
      <element name="mnc" type="short"/>
    </sequence>
  </complexType>

  <complexType name="NsPlmnIdListType">
    <sequence>
      <element name="nsPlmnId" type="un:NsPlmnId" minOccurs="0" maxOccurs="5"/>
    </sequence>
  </complexType>

  <simpleType name="numOfHsscchs">
    <restriction base="integer">
      <minInclusive value="1"/>
      <maxInclusive value="32"/>
    </restriction>
  </simpleType>

  <simpleType name="eightOctets">
    <restriction base="hexBinary">
      <length value="8"/>
    </restriction>
  </simpleType>

  <complexType name="uarfcnLCRList">
    <sequence>
      <element name="uarfcnLCR" maxOccurs="11">
        <complexType>
          <all>
            <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="1"/>
            <element name="timeSlotLCRList" type="un:timeSlotLCRList" minOccurs="0"/>
          </all>
        </complexType>
      </element>
    </sequence>
  </complexType>

  <simpleType name="suptoSupported">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
  </simpleType>

  <complexType name="TceIDMappingInfo">

```

```

    <sequence>
      <element name="tceID" type="short"/>
      <element name="tceIPAddr" type="string"/>
    </sequence>
  </complexType>
<complexType name="TceIDMappingInfoList">
  <sequence>
    <element name="tceIDMappingInfo" type="un:TceIDMappingInfo" minOccurs="0"/>
  </sequence>
</complexType>

<complexType name="SharNetTceMappingInfo">
  <sequence>
    <element name="pLMNId" type="long"/>
    <element name="tceID" type="short"/>
    <element name="tceIPAddr" type="string"/>
  </sequence>
</complexType>
<complexType name="SharNetTceMappingInfoList">
  <sequence>
    <element name="sharNetTceMappingInfo" type="un:SharNetTceMappingInfo" minOccurs="0"/>
  </sequence>
</complexType>

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

<element
  name="RncFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="mcc" type="string" minOccurs="0"/>
                <element name="mnc" type="string" minOccurs="0"/>
                <element name="rncId" type="string" minOccurs="0"/>
                <element name="suptoSupported" type="un:suptoSupported" minOccurs="0"/>
                <element name="tceIDMappingInfoList" type="un:TceIDMappingInfoList"
minOccurs="0"/>
                <element name="sharNetTceMappingInfoList" type="un:SharNetTceMappingInfoList"
minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranCellFDD"/>
            <element ref="un:UtranCellTDDLcr"/>
            <element ref="un:UtranCellTDDHcr"/>
            <element ref="un:IubLink"/>
            <element ref="un:RncFunctionOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element
  name="NodeBFunction"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="nodeBFunctionIubLink" type="string" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

    </element>
    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="un:NodeBFunctionOptionallyContainedNrmClass"/>
      <element ref="xn:VsDataContainer"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="UtranGenericCell" abstract="true">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                <element name="maximumTransmissionPower"
                  type="un:maximumTransmissionPower" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="sac" type="un:sac" minOccurs="0"/>
                <element name="uraList" type="un:uraList" minOccurs="0"/>
                <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                <element name="operationalState"
                  type="sm:operationalStateType" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset"
                  type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedULTxPower"
                  type="un:maximumAllowedULTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                  type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="nsPlmnIdList" type="un:NsPlmnIdListType" minOccurs="0"/>
                <element name="restrictionStateIndicator"
                  type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator"
                  type="un:dpcModeChangeSupport" minOccurs="0"/>
                <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranRelation"/>
            <element ref="gn:GsmRelation"/>
            <element ref="un:UtranGenericCellOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="UtranCellFDD">
  <complexType>

```

```

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

            <!-- Inherited attributes from UtranGenericCell -->
            <element name="userLabel" type="string" minOccurs="0"/>
            <element name="cId" type="un:cId" minOccurs="0"/>
            <element name="localCellId" type="un:localCellId" minOccurs="0"/>
            <element name="maximumTransmissionPower"
              type="un:maximumTransmissionPower" minOccurs="0"/>
            <element name="cellMode" type="un:cellMode" minOccurs="0"/>
            <element name="pichPower" type="un:pichPower" minOccurs="0"/>
            <element name="pchPower" type="un:pchPower" minOccurs="0"/>
            <element name="fachPower" type="un:fachPower" minOccurs="0"/>
            <element name="lac" type="un:lac" minOccurs="0"/>
            <element name="rac" type="un:rac" minOccurs="0"/>
            <element name="sac" type="un:sac" minOccurs="0"/>
            <element name="uraList" type="un:uraList" minOccurs="0"/>
            <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
            <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
            <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
            <element name="operationalState"
              type="sm:operationalStateType" minOccurs="0"/>
            <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
            <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
            <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
            <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
            <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
            <element name="cellIndividualOffset"
              type="un:cellIndividualOffset" minOccurs="0"/>
            <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
            <element name="maximumAllowedUllTxPower"
              type="un:maximumAllowedUllTxPower" minOccurs="0"/>
            <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
            <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
            <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
            <element name="qhcs" type="un:qhcs" minOccurs="0"/>
            <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
            <element name="referenceTimeDifferenceToCell"
              type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
            <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
            <element name="nsPlmnIdList" type="un:NsPlmnIdListType" minOccurs="0"/>
            <element name="restrictionStateIndicator"
              type="un:restrictionStateIndicator" minOccurs="0"/>
            <element name="dpcModeChangeSupportIndicator"
              type="un:dpcModeChangeSupport" minOccurs="0"/>
            <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
            <!-- End of inherited attributes from UtranGenericCell -->

            <element name="uarfcnUl" type="un:uarfcnAnyMode" minOccurs="0"/>
            <element name="uarfcnDl" type="un:uarfcnAnyMode" minOccurs="0"/>
            <element name="primaryScramblingCode" type="un:primaryScramblingCode"
              minOccurs="0"/>
            <element name="primaryCpichPower" type="un:primaryCpichPower" minOccurs="0"/>
            <element name="primarySchPower" type="un:primarySchPower" minOccurs="0"/>
            <element name="secondarySchPower" type="un:secondarySchPower" minOccurs="0"/>
            <element name="bchPower" type="un:bchPower" minOccurs="0"/>
            <element name="aichPower" type="un:aichPower" minOccurs="0"/>
            <element name="qqualMin" type="un:qqualMin" minOccurs="0"/>
            <element name="cellCapabilityContainerFDD" type="un:cellCapabilityContainerFDD"
              minOccurs="0"/>
            <element name="txDiversityIndicator" type="un:txDiversityIndicator"
              minOccurs="0"/>
            <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
            <element name="temporaryOffset2" type="un:temporaryOffset2" minOccurs="0"/>
            <element name="sttdSupportIndicator" type="un:sttdSupport" minOccurs="0"/>
            <element name="closedLoopModelSupportIndicator" type="un:closedLoopModel"
              minOccurs="0"/>

          </all>
        </complexType>
      </element>
      <choice minOccurs="0" maxOccurs="unbounded">
        <element ref="un:UtranRelation"/>
        <element ref="gn:GsmRelation"/>
        <element ref="un:UtranCellFDDOptionallyContainedNrmClass"/>
      </choice>
    </sequence>
  </extension>

```



```

        <element ref="xn:VsDataContainer" />
    </choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="UtranCellTDD" abstract="true">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>

                <!-- Inherited attributes from UtranGenericCell -->
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                <element name="maximumTransmissionPower"
                    type="un:maximumTransmissionPower" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="sac" type="un:sac" minOccurs="0"/>
                <element name="uraList" type="un:uraList" minOccurs="0"/>
                <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                <element name="operationalState"
                    type="sm:operationalStateType" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset"
                    type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedULTxPower"
                    type="un:maximumAllowedULTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                    type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="nsPlmnIdList" type="un:NsPlmnIdListType" minOccurs="0"/>
                <element name="restrictionStateIndicator"
                    type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator"
                    type="un:dpcModeChangeSupport" minOccurs="0"/>
                <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
                <!-- End of inherited attributes from UtranGenericCell -->

                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"
                    minOccurs="0"/>
                <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranRelation"/>
            <element ref="gn:GsmRelation"/>
            <element ref="un:UtranCellTDDOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

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

<element name="UtranCellTDDLcr">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>

                <!-- Inherited attributes from UtranGenericCell via UtranCellTDD -->
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                <element name="maximumTransmissionPower"
                  type="un:maximumTransmissionPower" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="sac" type="un:sac" minOccurs="0"/>
                <element name="uraList" type="un:uraList" minOccurs="0"/>
                <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                <element name="operationalState"
                  type="sm:operationalStateType" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset"
                  type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedULTxPower"
                  type="un:maximumAllowedULTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                  type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="nsPlmnIdList" type="un:NsPlmnIdListType" minOccurs="0"/>
                <element name="restrictionStateIndicator"
                  type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator"
                  type="un:dpcModeChangeSupport" minOccurs="0"/>
                <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
                <!-- End of inherited attributes from UtranGenericCell via UtranCellTDD -->

                <!-- Inherited attributes from UtranCellTDD -->
                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"
                  minOccurs="0"/>
                <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                <!-- End of inherited attributes from UtranCellTDD -->

                <element name="uarfcnLCRLList" type="un:uarfcnLCRLList" minOccurs="0"/>
                <element name="fpachPower" type="un:fpachPower" minOccurs="0"/>
                <element name="dwPchPower" type="un:dwPchPower" minOccurs="0"/>
                <element name="tstdIndicator" type="un:tstdIndicator" minOccurs="0"/>
                <element name="timeSlotLCRLList" type="un:timeSlotLCRLList" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="un:UtranRelation"/>
      <element ref="gn:GsmRelation"/>
      <element ref="un:UtranCellTDDLcrOptionallyContainedNrmClass"/>
      <element ref="xn:VsDataContainer"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="UtranCellTDDHcr">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>

                <!-- Inherited attributes from UtranGenericCell via UtranCellTDD -->
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                <element name="maximumTransmissionPower"
                  type="un:maximumTransmissionPower" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="sac" type="un:sac" minOccurs="0"/>
                <element name="uraList" type="un:uraList" minOccurs="0"/>
                <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                <element name="operationalState"
                  type="sm:operationalStateType" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset"
                  type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedULTxPower"
                  type="un:maximumAllowedULTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                  type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="nsPlmnIdList" type="un:NsPlmnIdListType" minOccurs="0"/>
                <element name="restrictionStateIndicator"
                  type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator"
                  type="un:dpcModeChangeSupport" minOccurs="0"/>
                <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
                <!-- End of inherited attributes from UtranGenericCell via UtranCellTDD -->

                <!-- Inherited attributes from UtranCellTDD -->
                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                <element name="primaryCpchPower" type="un:primaryCpchPower" minOccurs="0"/>
                <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"
                  minOccurs="0"/>
                <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                <!-- End of inherited attributes from UtranCellTDD -->

                <element name="schPower" type="un:schPower" minOccurs="0"/>
                <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        <element name="syncCase" type="un:syncCase" minOccurs="0"/>
        <element name="timeSlotForSch" type="un:timeSlotForSch" minOccurs="0"/>
        <element name="schTimeSlot" type="un:schTimeSlot" minOccurs="0"/>
        <element name="timeSlotHCRLList" type="un:timeSlotHCRLList" minOccurs="0"/>
    </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
    <element ref="un:UtranRelation"/>
    <element ref="gn:GsmRelation"/>
    <element ref="un:UtranCellTDDHcrOptionallyContainedNrmClass"/>
    <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="IubLink">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClass">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" type="string" minOccurs="0"/>
                                <element name="iubLinkUtranCell" type="xn:dnList" minOccurs="0"/>
                                <element name="iubLinkATMChannelTerminationPoint" type="xn:dn" minOccurs="0"/>
                                <element name="iubLinkNodeBFunction" type="xn:dn" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="un:IubLinkOptionallyContainedNrmClass"/>
                        <element ref="xn:VsDataContainer"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="UtranRelation">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClass">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="adjacentCell" type="xn:dn" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="un:UtranRelationOptionallyContainedNrmClass"/>
                        <element ref="xn:VsDataContainer"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element
    name="ExternalUtranGenericCell" abstract="true"
>
    <complexType>
        <complexContent>
            <extension base="xn:NrmClass">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" type="string" minOccurs="0"/>
                                <element name="cId" type="un:cId" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```

```

    <element name="mcc" type="string" minOccurs="0"/>
    <element name="mnc" type="string" minOccurs="0"/>
    <element name="rncId" type="string" minOccurs="0"/>
    <element name="cellMode" type="un:cellMode" minOccurs="0"/>
    <element name="lac" type="un:lac" minOccurs="0"/>
    <element name="rac" type="un:rac" minOccurs="0"/>
    <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
    <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
    <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
    <element name="cellIndividualOffset" type="un:cellIndividualOffset"
      minOccurs="0"/>
    <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
    <element name="maximumAllowedUltrTxPower" type="un:maximumAllowedUltrTxPower"
      minOccurs="0"/>
    <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
    <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
    <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
    <element name="qhcs" type="un:qhcs" minOccurs="0"/>
    <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
    <element name="referenceTimeDifferenceToCell"
      type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
    <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
    <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
      minOccurs="0"/>
    <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"
      minOccurs="0"/>
  </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="un:ExternalUtranGenericCellOptionallyContainedNrmClass"/>
  <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

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

                <!-- Inherited attributes from ExternalUtranGenericCell -->
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="mcc" type="string" minOccurs="0"/>
                <element name="mnc" type="string" minOccurs="0"/>
                <element name="rncId" type="string" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                  minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUltrTxPower" type="un:maximumAllowedUltrTxPower"
                  minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                  type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                  minOccurs="0"/>

```

```

    <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"
      minOccurs="0"/>
    <!-- End of inherited attributes from ExternalUtranGenericCell -->

    <element name="uarfcnUl" type="un:uarfcnAnyMode" minOccurs="0"/>
    <element name="uarfcnDl" type="un:uarfcnAnyMode" minOccurs="0"/>
    <element name="primaryScramblingCode" type="un:primaryScramblingCode"
      minOccurs="0"/>
    <element name="primaryCpichPower" type="un:primaryCpichPower" minOccurs="0"/>
    <element name="aichPower" type="un:aichPower" minOccurs="0"/>
    <element name="qqualMin" type="un:qqualMin" minOccurs="0"/>
    <element name="cellCapabilityContainerFDD" type="un:cellCapabilityContainerFDD"
      minOccurs="0"/>
    <element name="txDiversityIndicator" type="un:txDiversityIndicator"
      minOccurs="0"/>
    <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
    <element name="temporaryOffset2" type="un:temporaryOffset2" minOccurs="0"/>
    <element name="sttdSupportIndicator" type="un:sttdSupport" minOccurs="0"/>
    <element name="closedLoopModelSupportIndicator" type="un:closedLoopModel"
      minOccurs="0"/>
  </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="un:ExternalUtranCellFDDOptionallyContainedNrmClass"/>
  <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element
  name="ExternalUtranCellTDD" abstract="true"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>

                <!-- Inherited attributes from ExternalUtranGenericCell -->
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="mcc" type="string" minOccurs="0"/>
                <element name="mnc" type="string" minOccurs="0"/>
                <element name="rncId" type="string" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                  minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"
                  minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"
                  type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                  minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"
                  minOccurs="0"/>
                <!-- End of inherited attributes from ExternalUtranGenericCell -->

                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>

```

```

        <element name="cellCapabilityContainerTDD"
            type="un:cellCapabilityContainerTDD" minOccurs="0"/>
        <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
        <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
    </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
    <element ref="un:ExternalUtranCellTDDOptionallyContainedNrmClass"/>
    <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

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

                                <!-- Inherited attributes from ExternalUtranGenericCell via ExternalUtranCellTDD -->
                                <element name="userLabel" type="string" minOccurs="0"/>
                                <element name="cId" type="un:cId" minOccurs="0"/>
                                <element name="mcc" type="string" minOccurs="0"/>
                                <element name="mnc" type="string" minOccurs="0"/>
                                <element name="rncId" type="string" minOccurs="0"/>
                                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                                <element name="lac" type="un:lac" minOccurs="0"/>
                                <element name="rac" type="un:rac" minOccurs="0"/>
                                <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                                <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                                    minOccurs="0"/>
                                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                                <element name="maximumAllowedUltrTxPower" type="un:maximumAllowedUltrTxPower"
                                    minOccurs="0"/>
                                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                                <element name="referenceTimeDifferenceToCell"
                                    type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                                    minOccurs="0"/>
                                <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"
                                    minOccurs="0"/>
                                <!-- End of inherited attributes from ExternalUtranGenericCell -->

                                <!-- Inherited attributes from ExternalUtranCellTDD -->
                                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                                <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                                <element name="cellCapabilityContainerTDD"
                                    type="un:cellCapabilityContainerTDD" minOccurs="0"/>
                                <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                                <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                                <!-- End of inherited attributes from ExternalUtranCellTDD -->

                                <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
                                <element name="syncCase" type="un:syncCase" minOccurs="0"/>
                                <element name="timeSlotForSch" type="un:timeSlotForSch" minOccurs="0"/>
                                <element name="schTimeSlot" type="un:schTimeSlot" minOccurs="0"/>
                                <element name="timeSlotHCRLList" type="un:timeSlotHCRLList" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```

```

        <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:ExternalUtranCellTDDHcrOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
        </choice>
    </sequence>
</extension>
</complexContent>
</complexType>
</element>

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

                                <!-- Inherited attributes from ExternalUtranGenericCell via ExternalUtranCellTDD -->
                                <element name="userLabel" type="string" minOccurs="0"/>
                                <element name="cId" type="un:cId" minOccurs="0"/>
                                <element name="mcc" type="string" minOccurs="0"/>
                                <element name="mnc" type="string" minOccurs="0"/>
                                <element name="rncId" type="string" minOccurs="0"/>
                                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                                <element name="lac" type="un:lac" minOccurs="0"/>
                                <element name="rac" type="un:rac" minOccurs="0"/>
                                <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                                <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                                    minOccurs="0"/>
                                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                                <element name="maximumAllowedUltrTxPower" type="un:maximumAllowedUltrTxPower"
                                    minOccurs="0"/>
                                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                                <element name="referenceTimeDifferenceToCell"
                                    type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                                    minOccurs="0"/>
                                <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"
                                    minOccurs="0"/>
                                <!-- End of inherited attributes from ExternalUtranGenericCell -->

                                <!-- Inherited attributes from ExternalUtranCellTDD -->
                                <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                                <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                                <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                                <element name="cellCapabilityContainerTDD"
                                    type="un:cellCapabilityContainerTDD" minOccurs="0"/>
                                <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                                <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                                <!-- End of inherited attributes from ExternalUtranCellTDD -->

                                <element name="tstdIndicator" type="un:tstdIndicator" minOccurs="0"/>
                                <element name="timeSlotLCRLList" type="un:timeSlotLCRLList" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="un:ExternalUtranCellTDDLcrOptionallyContainedNrmClass"/>
                        <element ref="xn:VsDataContainer"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```



```

<element
  name="ExternalRncFunction"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
>
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="mcc" type="string" minOccurs="0"/>
                <element name="mnc" type="string" minOccurs="0"/>
                <element name="rncId" type="string" minOccurs="0"/>
                <element name="controlledCellList" type="xn:dnList" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:ExternalUtranCellFDD"/>
            <element ref="un:ExternalUtranCellTDDHcr"/>
            <element ref="un:ExternalUtranCellTDDLcr"/>
            <element ref="un:ExternalRncFunctionOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="EP_Iur">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="connectedRncId" type="string" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="RncFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="NodeBFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranGenericCellOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranCellFDDOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranCellTDDOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranCellTDDLcrOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranCellTDDHcrOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="IubLinkOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranRelationOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="ExternalUtranGenericCellOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
<element name="ExternalUtranCellFDDOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
<element name="ExternalUtranCellTDDOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
<element name="ExternalUtranCellTDDHcrOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
<element name="ExternalUtranCellTDDLcrOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
<element name="ExternalRncFunctionOptionallyContainedNrmClass"
  type="xn:NrmClass" abstract="true"/>
</schema>

```

Annex C (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
2013-03	SA#59	SP-130057	001	-	CR R11 28.653 Alignment with 28.652: Addition of missing Network Sharing support for MDT	F	11.0.0	11.1.0
2013-06					Addition of missing Table of Contents (MCC)		11.1.0	11.1.1
2013-09	SA#61	SP-130433	002	1	UTRAN NRM SS Correction of wrong import references and name space identifiers	F	11.1.1	11.2.0
2014-02					Corrected Clause numbering for Change History Annex (MCC)		11.2.0	11.2.1
2014-06	SA#64	SP-140332	003	1	upgrade XSD	F	11.2.1	11.3.0
		SP-140359	005	-	remove the feature support statements	F		
2014-09	SA#65	SP-140558	006	-	correction of data type	F	11.3.0	11.4.0
		SP-140560	007	-	Update the link from Solution Set to Information Service due to the end of Release 12	C	11.4.0	12.0.0
2014-12	SA#66	SP-140800	009	1	Add support for sharing of UTRAN	B	12.0.0	12.1.0
2015-12	SA#70	SP-150691	010	-	Align id attribute definitions	A	12.1.0	12.2.0
2016-01	SA#70				Upgrade to Release 13 (MCC)		12.2.0	13.0.0
2016-03	SA#71	SP-160031	014	-	Make the XML schema well formed	A	13.0.0	13.1.0

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-06	SA#72	SP-160407	0012	-	F	Update the link from IRP Solution Set to IRP Information Service	13.2.0
2017-03	SA#75	-	-	-	-	Promotion to Release 14 without technical change	14.0.0

History

Document history		
V14.0.0	April 2017	Publication