# ETSI TS 128 653 V12.0.0 (2014-10)



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 12.0.0 Release 12)



Reference
RTS/TSGS-0528653vc00

Keywords
LTE, UMTS

#### **ETSI**

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

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

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

#### Important notice

The present document can be downloaded from: http://www.etsi.org

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

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<a href="http://portal.etsi.org/tb/status/status.asp">http://portal.etsi.org/tb/status/status.asp</a></a>

If you find errors in the present document, please send your comment to one of the following services: <u>http://portal.etsi.org/chaircor/ETSI\_support.asp</u>

#### **Copyright Notification**

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

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

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

© European Telecommunications Standards Institute 2014.
All rights reserved.

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

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

# Intellectual Property Rights

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

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

#### **Foreword**

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

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

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

# Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "may not", "need", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the <a href="ETSI Drafting Rules">ETSI Drafting Rules</a> (Verbal forms for the expression of provisions).

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

# Contents

Intell	lectual Property Rights	2
	word	
	lal verbs terminology	
Forev	word	5
Intro	duction	5
1	Scope	$\epsilon$
	•	
2	References	6
3	Definitions and abbreviations	
3.1	Definitions	
3.2	Abbreviations	7
4	Solution Set Definitions	8
A	ex A (normative): CORBA Solution Set	•
A.1	Architectural features	
A.1.1 A.1.2	•	
A.2	Mapping	
A.2.1	11 6	
A.2.2 A.2.2	J 11 6	
A.2.2		
A.2.2 A.2.2		
A.2.2		
A.2.2		
A.2.2	2.11 UtranCellTDDHcr	16
A.2.2		
A.2.2		
A.2.2 A.2.2		
A.2.2 A.2.2		
A.2.2		
A.2.2	<del>-</del>	
A.2.2	2.19 IOC EP_Iur	18
A.3	Solution Set definitions	19
A.3.1	IDL definition structure	19
A.3.2	2 IDL specification "UtranNetworkResourcesNRMDefs.idl"	19
Anno	ex B (normative): XML Definitions	26
B.1	Architectural features	
в.1 В.1.1		
B.2	Mapping	
B.2.1 B.2.2		
кΚ	Solution Set definitions	27

B.3.1	XML definition stru	cture	27
			27
B.3.3	XML schema "utra	anNrm.xsd"	28
Annex (	C (informative):	Change history	48
	,		49

#### **Foreword**

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

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

Version x.y.z

#### where:

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

#### Introduction

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

- 28.651: "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 V12. 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.*
- 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
   3GPP TS 32.102: "Telecommunication management; Architecture".
   3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".
   3GPP TS 28.652: "Telecommunication management; Universal Terrestrial Radio Access Network (UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".
   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

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

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
id	rncFunctionId	string
mcc	mcc	long
mnc	mnc	long
rncId	rncId	long
siptoSupported	siptoSupported	short
tceIDMappingInfoList	tceIDMappingInfoList	GenericNRMAttributeTypes::
-		TceIDMappingInfoListType
sharNetTceMappingInfoList	sharNetTceMappingInfoList	genericEUTRANNRMAttributeTypes::
		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/	utranCellIubLink	GenericNetworkResourcesIRPSystem::
utranCell-IubLink		AttributeTypes::MOReference
cellMode	cellMode	GenericNRMAttributeTypes::
		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	GenericNRMAttributeTypes::
		snaInformationType
qrxlevMin	qrxlevMin	short
deltaQrxlevmin	deltaQrxlevmin	short
qhcs	qhcs	short
penaltyTime	penaltyTime	short
referenceTimeDifferenceToCell	referenceTimeDifferenceToCell	short
readSFNIndicator	readSFNIndicator	Boolean
restrictionStateIndicator	restrictionStateIndicator	GenericNRMAttributeTypes::
		restrictionStateEnumType
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNRMAttributeTypes::
		dpcModeChangeSupportEnumType

relatedTmaList	relatedTmaList	GenericNetworkResourceIRPSystem::AttributeTypes::
		MOReferenceSet
relatedSectorEquipment relatedSectorEquipment GenericNetworkResourceIRPSystem::AttributeTypes::		GenericNetworkResourceIRPSystem::AttributeTypes::
MOReference		
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 lubLink

#### Mapping from NRM IOC lubLink attributes and associations to SS equivalent MOC lubLink attributes

IS Attributes	SS Attributes	SS Type
AssociatedWith/	iubLinkUtranCell	GenericNetworkResourcesIRPSystem::
iubLink-UtranCell		AttributeTypes::MOReferenceSet
ConnectedTo/	iubLinkNodeBFunction	GenericNetworkResourcesIRPSystem::
iubLink-NodeBFunction		AttributeTypes::MOReference
AssociatedWith1/	iubLinkATMChannelTermination	GenericNetworkResourcesIRPSystem::
iubLink-ATMChannelTerminationPoint	Point	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	GenericNRMAttributeTypes::
		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	GenericNRMAttributeTypes::
		restrictionStateEnumType
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNRMAttributeTypes::
		dpcModeChangeSupportEnumType
snaInformation	snaInformation	GenericNRMAttributeTypes::
		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

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

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	S 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 cellCapabilityContaine		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	TDDNRMAttributeTypes:: UarfcnLCRListConfigStructType	
dwPchPower	dwPchPower	float	
fpachPower	fpachPower	float	
tstdIndicator	tstdIndicator	TDDNRMAttributeTypes:: tstdIndicatorEnumType	
timeSlotLCRList	timeSlotLCRList	TDDNRMAttributeTypes::	
		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	TDDNRMAttributeTypes:: 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	FDDNetworkResourceMAttributeTypes::
		CellCapabilityContainerFDDType
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAttributeTypes::
		txDiversityIndicatorEnumType
temporaryOffset1	temporaryOffset1	short
temporaryOffset2	temporaryOffset2	short
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAttributeTypes::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 ExternalUtranCelITDD attributes and associations to SS equivalent MOC ExternalUtranCelITDD 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
timeSlotHCRList	timeSlotHCRList	TDDNRMAttributeTypes::
		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	TDDNRMAttributeTypes:: tstdIndicatorEnumType	
timeSlotLCRList	timeSlotLCRList	TDDNRMAttributeTypes::	
		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
adjacentCell	adjacentCell	string

#### A.2.2.17 IOC EP\_IuCS

# 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].		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		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"
\ensuremath{^{\star}} 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 rncFunctionId = "rncFunctionId";
         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 id = "id";
         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 relatedSectorEquipment = "relatedSectorEquipment";
* Definitions for MO class NodeBFunction
interface NodeBFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "NodeBFunction";
  // Attribute Names
  const string nodeBFunctionId = "nodeBFunctionId";
  const string nodeBFunctionIubLink = "nodeBFunctionIubLink";
* Definitions for MO class IubLink
interface IubLink : GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "IubLink";
  // Attribute Names
  //
  const string iubLinkId = "iubLinkId";
  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 utranRelationId = "utranRelationId";
  const string adjacentCell = "adjacentCell";
* Definitions for MO class ExternalUtranGenericCell
\verb|interface ExternalUtranGenericCell| : GenericNetworkResourcesNRMDefs:: ManagedFunction| \\
  const string CLASS = "ExternalUtranGenericCell";
  // Attribute Names
  //
  const string id = "id";
  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 grxlevMin = "grxlevMin";
  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 externalRncFunctionId = "externalRncFunctionId";
  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 timeSlotHCRList = "timeSlotHCRList";
};
* 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 primaryCcpchPower = "primaryCcpchPower";
  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 timeSlotHCRList = "timeSlotHCRList";
};
* Definitions for MO class ExternalUtranCellTDDLcr
* /
interface ExternalUtranCellTDDLcr : ExternalUtranCellTDD
  const string CLASS = "ExternalUtranCellTDDLcr";
```

```
// Attribute Names
         11
         const string tstdIndicator = "tstdIndicator";
         const string timeSlotLCRList = "timeSlotLCRList";
/**
       * 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 GenericNRMAttributeTypes
      enum CellModeEnumType
         FDDMode,
        TDDMode_1_28Mcps,
        TDDMode_3_84Mcps
      enum RestrictionStateEnumType
       cellReservedForOperatorUse,
       cellAccessible
      };
      enum DpcModeChangeEnumType
       dpcModeChange_supported,
       {\tt 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;
};
      struct SharNetTceMappingInfo
      long PLMNId;
      short tceID;
      string tceIPAddr;
      typedef sequence<SharNetTceMappingInfo> SharNetTceMappingInfoListType;
};
    * This module adds datatype definitions for FDD mode attributes
    ^{\star}\,\, used in the NRM which are not the basic datatypes already defined
      in CORBA.
   * /
   module FDDNRMAttributeTypes
      enum SttdSupportEnumType
       active,
       inactive
      };
      enum txDiversityIndicatorEnumType
       none,
       \verb"primaryCpichBroadcastFrom2Antennas",
       sttdAppliedToPrimaryCCPCH,
       tstdAppliedToPrimarySchAndSecondarySch
      enum ClosedLoopMode1EnumType
       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_SFs_Support_Indicator = 7;
       const unsigned long E_DCH_2sf2_and_all_inferior_SFs_Support_Indicator = 8;
       const unsigned long E_DCH_2sf4_and_all_inferior_SFs_Support_Indicator = 9;
       const unsigned long E_DCH_sf4_and_all_inferior_SFs_Support_Indicator = 10;
       const unsigned long E_DCH_sf8_and_all_inferior_SFs_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 TDDNRMAttributeTypes
      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;
      \verb|struct UarfcnLCRConfigStructType| \\
         short uarfcn;
        TimeSlotListConfigStructType timeSlotLCRList;
      typedef sequence<UarfcnLCRConfigStructType> UarfcnLCRListConfigStructType;
#endif //_UTRANNETWORKRESOURCESNRMDEFS_IDL_
```

# Annex B (normative): XML Definitions

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

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

```
<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="timeSlotHCRList">
  <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="SttdAppliedToPrimaryCCPCH"/>
    <enumeration value="TstdAppliedToPrimarySchAndSecondarySch"/>
  </restriction>
</simpleType>
```

```
<complexType name="cellCapabilityContainerFDD">
  <complexContent>
    -
<extension base="xn:NrmClass">
      <sequence>
        <element name="attributes" minOccurs="0">
          <complexType>
               <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_SFs_Support_Indicator" minOccurs="0"/>
               <element name="E_DCH_2sf4_and_all_inferior_SFs_Support_Indicator" minOccurs="0"/>
               <element name="E_DCH_sf4_and_all_inferior_SFs_Support_Indicator" minOccurs="0"/>
<element name="E_DCH_sf8_and_all_inferior_SFs_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>
  <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>
 <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="siptoSupported">
    <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"/>
  </complexType>
  <complexType name="TceIDMappingInfoList">
```

```
<element name="tceIDMappingInfo" type="en: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="SharNetTceMappingInfo">
    <sequence>
      <element name="sharNetTceMappingInfo" type="un:SharNetTceMappingInfo" minOccurs="0"/>
    </sequence>
  </complexType>
  <!-- UTRAN Network Resources IRP NRM class associated XML elements -->
  <element
    name="RncFunction"
    \verb|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="siptoSupported" type= "un:siptoSupported">
                   <element name="tceIDMappingInfoList" type="un:TceIDMappingInfoList"</pre>
minOccurs="0"/>
                  <element name="sharNetTceMappingInfoList" type="un:SharNetTceMappingInfoList"</pre>
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>
            <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"</pre>
                          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"</pre>
                          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"</pre>
                         type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower"</pre>
                         type="un:maximumAllowedUlTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="grxlevMin" type="un:grxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" min0ccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator"</pre>
                         type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModechangeSupportIndicator"</pre>
                          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="qn: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"</pre>
                          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"</pre>
                          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"</pre>
                          type="un:cellIndividualOffset" minOccurs="0"/>
                 <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                 <element name="maximumAllowedUlTxPower"</pre>
                          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"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                 <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                 <element name="restrictionStateIndicator"</pre>
                          type="un:restrictionStateIndicator" minOccurs="0"/>
                 <element name="dpcModechangeSupportIndicator"</pre>
                 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"</pre>
                          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"</pre>
                              minOccurs="0"/>
                 <element name="txDiversityIndicator" type="un:txDiversityIndicator"</pre>
                               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"</pre>
                          minOccurs="0"/>
                 </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranRelation"/>
            <element ref="gn:GsmRelation"/>
            <element ref="un:UtranCellFDDOptionallyContainedNrmClass"/>
            <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"</pre>
                           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"</pre>
                           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"</pre>
                           type="un:cellIndividualOffset" minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower"</pre>
                           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"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                  <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                  <element name="restrictionStateIndicator"</pre>
                           type="un:restrictionStateIndicator" minOccurs="0"/>
                  <element name="dpcModechangeSupportIndicator"</pre>
                           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"</pre>
                          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>
<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"</pre>
                     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"</pre>
            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"</pre>
                     type="un:cellIndividualOffset" minOccurs="0"/>
            <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
            <element name="maximumAllowedUlTxPower"</pre>
                     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" min0ccurs="0"/>
            <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
            <element name="referenceTimeDifferenceToCell"</pre>
                     type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
            <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
            <element name="restrictionStateIndicator"</pre>
                     type="un:restrictionStateIndicator" minOccurs="0"/>
            <element name="dpcModechangeSupportIndicator"</pre>
                     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"</pre>
                     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="uarfcnLCRList" type="un:uarfcnLCRList" 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="timeSlotLCRList" type="un:timeSlotLCRList" minOccurs="0"/>
           </all>
        </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"</pre>
                            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"</pre>
                            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"</pre>
                           type="un:cellIndividualOffset" minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower"</pre>
                            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" min0ccurs="0"/>
                  <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                  <element name="referenceTimeDifferenceToCell"</pre>
                            type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                  <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                   <element name="restrictionStateIndicator"</pre>
                           type="un:restrictionStateIndicator" minOccurs="0"/>
                   <element name="dpcModechangeSupportIndicator"</pre>
                            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"</pre>
                           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"/>
                  <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="timeSlotHCRList" type="un:timeSlotHCRList" 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"/>
                 <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"</pre>
```

```
minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"</pre>
                         minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaOrxlevmin" type="un:deltaOrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" min0ccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"</pre>
                         type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                         minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                         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"
 \verb|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"</pre>
                        minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"</pre>
                         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" min0ccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                         minOccurs="0"/>
                <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                          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"</pre>
                         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"</pre>
                         minOccurs="0"/>
                <element name="txDiversityIndicator" type="un:txDiversityIndicator"</pre>
                          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"</pre>
                          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"</pre>
                          minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"</pre>
                         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"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                          minOccurs="0"/>
                 <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                          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"</pre>
                          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"
  \verb|substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"|
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <a115
                 <!--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"</pre>
                          minOccurs="0"/>
                 <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                 <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"</pre>
                          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"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                 <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                 <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                          minOccurs="0"/>
                 <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                          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"</pre>
                          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="timeSlotHCRList" type="un:timeSlotHCRList" minOccurs="0"/>
               </all>
            </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" min0ccurs="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"</pre>
                           minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"</pre>
                           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"</pre>
                            type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                  <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                  <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                           minOccurs="0"/>
                  <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                           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"</pre>
                            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="timeSlotLCRList" type="un:timeSlotLCRList" 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">
            <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"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellFDDOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDHcrOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  \verb| < element name = "External Utran Cell TDDL cr Optionally Contained Nrm Class"|
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalRncFunctionOptionallyContainedNrmClass"</pre>
           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-	001	-	CR R11 28.653 Alignment with 28.652: Addition of missing Network	F	11.0.0	11.1.0
		130057			Sharing support for MDT			
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-	003	1	upgrade XSD	F	11.2.1	11.3.0
		140332						
		SP-	005	-	remove the feature support statements	F		
		140359						
2014-09	SA#65	SP-	006	-	correction of data type	F	11.3.0	11.4.0
		140558						
		SP- 140560	007	-	Update the link from Solution Set to Information Service due to the end of Release 12	С	11.4.0	12.0.0

## History

Document history								
V12.0.0	October 2014	Publication						