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TECHNICAL SPECIFICATION

Universal Mobile Telecommunications System (UMTS); LTE; Telecommunication management; Universal Terrestrial Radio Access Network (UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions (3GPP TS 28.653 version 14.1.0 Release 14)

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Contents

Foreword

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Introduction

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

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 V14.0.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.

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[1]   3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[2]   3GPP TS 32.102: "Telecommunication management; Architecture".

[3]   3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[4]   3GPP TS 28.652: "Telecommunication management; Universal Terrestrial Radio Access Network (UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".

[5]   3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".

[6]   3GPP TS 32.306: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP); Solution Set (SS) definitions".

[7]   3GPP TS 32.616: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Solution Set (SS) definitions".

[8]   W3C REC-xml11-20060816: "Extensible Markup Language (XML) 1.1 (Second Edition)".

[9]   Void

[10]   W3C XML Schema Definition Language (XSD) 1.1 Part 1: Structures.

[11]   W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.

[12]   W3C REC-xml-names-20060816: "Namespaces in XML 1.1 (Second Edition)".

[13]   3GPP TS 28.623: "Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definition".

3   Definitions and abbreviations

3.1   Definitions

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

XML file: See definition of [13].

XML document: See definition of [13].

XML declaration: See definition of [13].

XML element: See definition of [13].

empty XML element: See definition of [13].

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

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

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

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

XML attribute specification: See definition of [13].

DTD: See definition of [13].

XML schema: See definition of [13].

XML namespace: See definition of [13].

XML complex type: See definition of [13].

XML element type: See definition of [13].

3.2   Abbreviations

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

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

4   Solution Set Definitions

This specification defines the following 3GPP UTRAN NRM IRP Solution Set Definitions:

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

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

Annex A (normative): CORBA Solution Set

A.0 Introduction

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

A.1 Architectural features

A.1.0 General

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

A.1.1 Syntax for Distinguished Names

See clause A.1.1 of [13].

A.1.2 Rules for NRM extensions

See clause A.1.2 of [13].

A.2 Mapping

A.2.1 General mapping

See clause A.1.2.1 of [13].

A.2.2 Information Object Class (IOC) mapping

A.2.2.1 IOC RncFunction

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

IS Attributes	SS Attributes	SS Type
mcc	mcc	long
mnc	mnc	long
rncId	rncId	long
siptoSupported	siptoSupported	short
tceIDMappingInfoList	tceIDMappingInfoList	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/` `utranCell-IubLink`	`utranCellIubLink`	GenericNetworkResourcesIRPSystem::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::`snaInformation`Type
`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::MOReference
`nsPlmnIdList`	`nsPlmnIdList`	GenericNRMAttributeTypes::NsPlmnIdListType

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

A.2.2.3 IOC NodeBFunction

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

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

A.2.2.4 IOC IubLink

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

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

A.2.2.5 IOC ExternalUtranGenericCell

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

IS Attributes	SS Attributes	SS Type
cId	cId	long
mcc	mcc	short
mnc	mnc	short
rncId	rncId	long
cellMode	cellMode	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

IS Attributes	SS Attributes	SS Type
mcc	mcc	long
mnc	mnc	long
rncId	rncId	long
controlledCellList	controlledCellList	GenericNetworkResourcesIRPSystem:: AttributeTypes::MOReferenceSet
NOTE: For all support qualifiers with the value "O", see attribute constraints in TS 28.652 [4].		

A.2.2.8 UtranCellFDD

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

IS Attributes	SS Attributes	SS Type
uarfcnUl	uarfcnUl	short
uarfcnDl	uarfcnDl	short
primaryScramblingCode	primaryScramblingCode	short
primaryCpichPower	primaryCpichPower	float
primarySchPower	primarySchPower	float
secondarySchPower	secondarySchPower	float
bchPower	bchPower	float
aichPower	aichPower	float
qqualMin	qqualMin	float
cellCapabilityContainerFDD	cellCapabilityContainerFDD	FDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAttributeTypes:: txDiversityIndicatorEnumType
temporaryOffset1	temporaryOffset1	short
temporaryOffset2	temporaryOffset2	short
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAttributeTypes:: sttdSupportEnumType
closedLoopMode1SupportIndicator	closedLoopMode1SupportIndicator	FDDNetworkResourceMAttributeTypes:: closedLoopMode1EnumType
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.9   UtranCellTDD

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

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

A.2.2.10   UtranCellTDDLcr

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

IS Attributes	SS Attributes	SS Type
uarfcnLCRList	uarfcnLCRList	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 ExternalUtranCellTDD attributes and associations to SS equivalent MOC ExternalUtranCellTDD attributes

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

A.2.2.14 ExternalUtranCellTDDHcr

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

IS Attributes	SS Attributes	SS Type
temporaryOffset1	temporaryOffset1	short
syncCase	syncCase	short
timeSlotForSch	timeSlotForSch	short
schTimeSlot	schTimeSlot	short
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
		string
adjacentCell	adjacentCell	string

A.2.2.17 IOC EP_IuCS

Mapping from NRM IOC EP_IuCS attributes and associations to SS equivalent MOC EP_IuCS 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_IuPS

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

IS Attributes	SS Attributes	SS Type
connSgsnNumber	connSgsnNumber	unsigned short
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.2.2.19 IOC EP_Iur

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

IS Attributes	SS Attributes	SS Type
connectedRncId	connectedRncId	unsigned short
NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 28.652 [4].		

A.3 Solution Set definitions

A.3.1 IDL definition structure

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

A.3.2 IDL specification "UtranNetworkResourcesNRMDefs.idl"

```
//File:UtranNetworkResourcesNRMDefs.idl
#ifndef _UTRANNETWORKRESOURCESNRMDEFS_IDL_
#define _UTRANNETWORKRESOURCESNRMDEFS_IDL_
#include "GenericNetworkResourcesNRMDefs.idl"
#pragma prefix "3gppsa5.org"
/**
 * This module defines constants for each MO class name and
 * the attribute names for each defined MO class.
 */
module UtranNetworkResourcesNRMDefs
{

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


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

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


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

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

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

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

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

   /**
    *  Definitions for MO class UtranCellFDD
    */
   interface UtranCellFDD : UtranGenericCell
   {
      const string CLASS = "UtranCellFDD";
      // Attribute Names
      //
      const string uarfcnUl = "uarfcnUl";
      const string uarfcnDl = "uarfcnDl";
      const string primaryScramblingCode = "primaryScramblingCode";
      const string primaryCpichPower = "primaryCpichPower";
      const string primarySchPower = "primarySchPower";
      const string secondarySchPower = "secondarySchPower";
      const string bchPower = "bchPower";
      const string aichPower = "aichPower";
      const string qqualMin = "qqualMin";
      const string cellCapabilityContainerFDD = "cellCapabilityContainerFDD";
      const string txDiversityIndicator = "txDiversityIndicator";
      const string temporaryOffset1 = "temporaryOffset1";
      const string temporaryOffset2 = "temporaryOffset2";
      const string sttdSupportIndicator = "sttdSupportIndicator";
      const string closedLoopMode1SupportIndicator = "closedLoopMode1SupportIndicator";
   };

   /**
    *  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 closedLoopMode1SupportIndicator = "closedLoopMode1SupportIndicator";
      };
      /**
       *  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
         //
         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,
         dpcModeChange_not_supported
        };
        typedef long SNAC;
        struct snaInformationType
        {
         long mcc;
         long mnc;
         sequence<SNAC> snaList;
        };

     struct TceIDMappingInfo
     {
     short tceID;
     string tceIPAddr;
     };

    typedef sequence<TceIDMappingInfo> TceIDMappingInfoListType;


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

```
};

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

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

        enum txDiversityIndicatorEnumType
        {
         none,
         primaryCpichBroadcastFrom2Antennas,
         sttdAppliedToPrimaryCCPCH,
         tstdAppliedToPrimarySchAndSecondarySch
        };
        enum ClosedLoopMode1EnumType
        {
         closedLoopMode1_supported,
         closedLoopMode1_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;

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

Annex B (normative):
XML Definitions

B.0 Introduction

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

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

B.1 Architectural features

B.1.0 General

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

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

B.1.1 Syntax for Distinguished Names

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

B.2 Mapping

B.2.1 General mapping

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

B.2.2 Information Object Class (IOC) mapping

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

B.3   Solution Set definitions

B.3.1   XML definition structure

The overall description of the file format of configuration data XML files is provided by 3GPP TS 32.616 [7].

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

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

The definition of those NRM-specific XML element types complies with the generic mapping rules defined in 3GPP TS 32.616 [7].

B.3.2   Graphical Representation

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

B.3.3   XML schema "`utranNrm.xsd`"

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

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


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

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

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

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

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

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

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

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

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

```
      </simpleType>

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

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

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

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

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

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

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

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

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

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

  <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>
```

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

<simpleType name="closedLoopMode1">
  <restriction base="string">
    <enumeration value="closedLoopMode1Supported"/>
    <enumeration value="closedLoopMode1NotSupported"/>
  </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>
```

```
              <all>
                <element name="Flexible_Hard_Split_Support_Indicator" minOccurs="0"/>
                <element name="Delayed_Activation_Support_Indicator" minOccurs="0"/>
                <element name="HS_DSCH_Support_Indicator" minOccurs="0"/>
                <element name="DSCH_Support_Indicator" minOccurs="0"/>
                <element name="F_DPCH_Support_Indicator" minOccurs="0"/>
                <element name="E_DCH_Support_Indicator" minOccurs="0"/>
                <element name="E_DCH_TTI2ms_Support_Indicator" minOccurs="0"/>
                <element name="E_DCH_2sf2_and_all_inferior_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"/>
```

```xml
        </restriction>
      </simpleType>

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

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

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

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

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


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

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

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

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

    <complexType name="TceIDMappingInfo">
```

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

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

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

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

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

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

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

                <element name="uarfcnUl" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="uarfcnDl" type="un:uarfcnAnyMode" minOccurs="0"/>
                <element name="primaryScramblingCode" type="un:primaryScramblingCode"
                        minOccurs="0"/>
                <element name="primaryCpichPower" type="un:primaryCpichPower" minOccurs="0"/>
                <element name="primarySchPower" type="un:primarySchPower" minOccurs="0"/>
                <element name="secondarySchPower" type="un:secondarySchPower" minOccurs="0"/>
                <element name="bchPower" type="un:bchPower" minOccurs="0"/>
                <element name="aichPower" type="un:aichPower" minOccurs="0"/>
                <element name="qqualMin" type="un:qqualMin" minOccurs="0"/>
                <element name="cellCapabilityContainerFDD" type="un:cellCapabilityContainerFDD"
                        minOccurs="0"/>
                <element name="txDiversityIndicator" type="un:txDiversityIndicator"
                        minOccurs="0"/>
                <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
                <element name="temporaryOffset2" type="un:temporaryOffset2" minOccurs="0"/>
                <element name="sttdSupportIndicator" type="un:sttdSupport" minOccurs="0"/>
                <element name="closedLoopModelSupportIndicator" type="un:closedLoopMode1"
                        minOccurs="0"/>
              </all>
            </complexType>
          </element>
```

ETSI

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

                    <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                    <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                    <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                    <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"
                            minOccurs="0"/>
                    <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                    <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                  </all>
                </complexType>
              </element>
              <choice minOccurs="0" maxOccurs="unbounded">
```

ETSI

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

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

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

                        <!-- Inherited attributes from UtranCellTDD -->
                        <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                        <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                        <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                        <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"
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                                  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="vnfParametersList" type="xn:vnfParametersListType" 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="vnfParametersList" type="xn:vnfParametersListType" minOccurs="0"/>
                  <element name="cId" type="un:cId" minOccurs="0"/>
                  <element name="mcc" type="string" minOccurs="0"/>
                  <element name="mnc" type="string" minOccurs="0"/>
                  <element name="rncId" type="string" minOccurs="0"/>
                  <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                  <element name="lac" type="un:lac" minOccurs="0"/>
                  <element name="rac" type="un:rac" minOccurs="0"/>
                  <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                  <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                  <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                  <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                          minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"
                          minOccurs="0"/>
                  <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                  <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                  <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                  <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                  <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                  <element name="referenceTimeDifferenceToCell"
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                  <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                  <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                          minOccurs="0"/>
                  <element name="dpcModeChangeSupportIndicator"  type="un:dpcModeChangeSupport"
                          minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="un:ExternalUtranGenericCellOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

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

                  <!-- Inherited attributes from ExternalUtranGenericCell -->
                  <element name="userLabel" type="string" minOccurs="0"/>
                  <element name="vnfParametersList" type="xn:vnfParametersListType" minOccurs="0"/>
                  <element name="cId" type="un:cId" minOccurs="0"/>
                  <element name="mcc" type="string" minOccurs="0"/>
                  <element name="mnc" type="string" minOccurs="0"/>
                  <element name="rncId" type="string" minOccurs="0"/>
                  <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                  <element name="lac" type="un:lac" minOccurs="0"/>
                  <element name="rac" type="un:rac" minOccurs="0"/>
                  <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                  <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                  <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                  <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                          minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"
                          minOccurs="0"/>
```

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                        <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                        <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                        <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                        <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                        <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                        <element name="referenceTimeDifferenceToCell"
                                type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                        <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                        <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                                minOccurs="0"/>
                        <element name="dpcModeChangeSupportIndicator"  type="un:dpcModeChangeSupport"
                                minOccurs="0"/>
                        <!-- End of inherited attributes from ExternalUtranGenericCell -->

                        <element name="uarfcnUl" type="un:uarfcnAnyMode" minOccurs="0"/>
                        <element name="uarfcnDl" type="un:uarfcnAnyMode" minOccurs="0"/>
                        <element name="primaryScramblingCode" type="un:primaryScramblingCode"
                                minOccurs="0"/>
                        <element name="primaryCpichPower" type="un:primaryCpichPower" minOccurs="0"/>
                        <element name="aichPower" type="un:aichPower" minOccurs="0"/>
                        <element name="qqualMin" type="un:qqualMin" minOccurs="0"/>
                        <element name="cellCapabilityContainerFDD" type="un:cellCapabilityContainerFDD"
                                minOccurs="0"/>
                        <element name="txDiversityIndicator" type="un:txDiversityIndicator"
                                minOccurs="0"/>
                        <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
                        <element name="temporaryOffset2" type="un:temporaryOffset2" minOccurs="0"/>
                        <element name="sttdSupportIndicator" type="un:sttdSupport" minOccurs="0"/>
                        <element name="closedLoopMode1SupportIndicator" type="un:closedLoopMode1"
                                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="vnfParametersList" type="xn:vnfParametersListType" minOccurs="0"/>
                        <element name="cId" type="un:cId" minOccurs="0"/>
                        <element name="mcc" type="string" minOccurs="0"/>
                        <element name="mnc" type="string" minOccurs="0"/>
                        <element name="rncId" type="string" minOccurs="0"/>
                        <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                        <element name="lac" type="un:lac" minOccurs="0"/>
                        <element name="rac" type="un:rac" minOccurs="0"/>
                        <element name="controllingRnc" type="xn:dn" minOccurs="0"/>
                        <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                        <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                        <element name="cellIndividualOffset" type="un:cellIndividualOffset"
                                minOccurs="0"/>
                        <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                        <element name="maximumAllowedUlTxPower" type="un:maximumAllowedUlTxPower"
                                minOccurs="0"/>
                        <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                        <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                        <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                        <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                        <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                        <element name="referenceTimeDifferenceToCell"
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                                type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                            <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                            <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"
                                    minOccurs="0"/>
                            <element name="dpcModeChangeSupportIndicator"  type="un:dpcModeChangeSupport"
                                    minOccurs="0"/>
                            <!-- End of inherited attributes from ExternalUtranGenericCell -->

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

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

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

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

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

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

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

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

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

```
            type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDHcrOptionallyContainedNrmClass"
            type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDLcrOptionallyContainedNrmClass"
            type="xn:NrmClass" abstract="true"/>
  <element name="ExternalRncFunctionOptionallyContainedNrmClass"
            type="xn:NrmClass" abstract="true"/>

</schema>
```

Annex C (informative): Change history

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

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-06	SA#72	SP-160407	0012	-	F	Update the link from IRP Solution Set to IRP Information Service	13.2.0
2017-03	SA#75	-	-	-		Promotion to Release 14 without technical change	14.0.0
2017-06	SA#76	SP-170514	0016	-	F	Update link from IRP SS to IS	14.1.0
2017-06	SA#76	SP-170510	0017	1	B	Update the XML Schema definitions to align with IS to support Configuration Management for mobile networks that include virtualized network functions	14.1.0

History

Document history		
V14.0.0	April 2017	Publication
V14.1.0	July 2017	Publication