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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 11.1.1 Release 11)



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- z the third digit is incremented when editorial only changes have been incorporated in the document.

Ready for Converged Management

This specification is part of a set that has been developed for converged management solutions.

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 V11.1.X [4].

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*
- [1] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
 [2] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [3] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".
- [4] 3GPP TS 28.652: "Telecommunication management; Universal Terrestrial Radio Access Network (UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP);Information Service (IS)".
- [5] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".
- [6] 3GPP TS 32.306: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP); Solution Set (SS) definitions".
- [7] 3GPP TS 32.616: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Solution Set (SS) definitions".
- [8] W3C REC-xml-20001006: "Extensible Markup Language (XML) 1.0 (Second Edition)".
- [9] W3C REC-xmlschema-0-20010502: "XML Schema Part 0: Primer".
- [10] W3C REC-xmlschema-1-20010502: "XML Schema Part 1: Structures".
- [11] W3C REC-xmlschema-2-20010502: "XML Schema Part 2: Datatypes".
- [12] W3C REC-xml-names-19990114: "Namespaces in XML".
- [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 32.642 [4].

XML file: See definition of [13].

XML document: See definition of [13].

XML declaration: See definition of [13].

XML element: See definition of [13].

empty XML element: See definition of [13].

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

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

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

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

XML attribute specification: See definition of [13].

DTD: See definition of [13].

XML schema: See definition of [13].

XML namespace: See definition of [13].

XML complex type: See definition of [13].

XML element type: See definition of [13].

3.2 Abbreviations

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

CM Configuration Management

CORBA Common Object Request Broker Architecture

DN Distinguished Name
DTD Document Type Definition
EDGE Enhanced Data for GSM Evolution
GERAN GSM/EDGE Radio Access Network
GSM Global System for Mobile communication

IS Information Service

IDL Interface Definition Language (OMG)

IOC Information Object Class IRP Integration Reference Point

IS Information Service
MO Managed Object
MOC Managed Object Class
NRM Network Resource Model
OMG Object Management Group
SIPTO Selected IP Traffic Offload

SS Solution Set

UMTS Universal Mobile Telecommunications System

UTRAN Universal Terrestrial Radio Access Network

XML eXtensible Markup Language

4 Solution Set Definitions

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

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

Annex A (normative): CORBA Solution Set

This annex contains the CORBA Solution Set for the IRP whose semantics is specified in UTRAN NRM IRP: Information Service (TS 32.642 [4]).

A.1 Architectural features

The overall architectural feature of UTRAN Network Resources IRP is specified in 3GPP TS 32.642 [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

| NRM Attributes of IOC RncFunction in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|---------------------------|---|----------------------|------|-------|
| id | rncFunctionId | string | М | М | 1 |
| mcc | mcc | long | М | М | М |
| mnc | mnc | long | М | М | М |
| rncId | rncId | long | М | М | М |
| siptoSupported | siptoSupported | short | М | М | - |
| tceIDMappingInfoList | tcelDMappingInfoList | GenericNRMAttributeTypes:: TceIDMappingInfoListType | СМ | М | M |
| sharNetTceMappingInfoList | sharNetTceMappingInfoList | genericEUTRANNRMAttributeTypes:: SharNetTceMappingInfo | СМ | М | М |

A.2.2.2 IOC UtranGenericCell

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

| NRM Associations/Attributes of IOC UtranGenericCell in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier |
|---|-------------------------------|--|----------------------|
| id | id | string | М |
| cId | cId | long | М |
| localCellId | localCellId | long | М |
| relatedAntennaList | relatedAntennaList | GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet | 0 |
| maximumTransmissionPower | maximumTransmissionPower | short | M |
| lac | lac | long | M |
| pichPower | pichPower | float | CM |
| pchPower | pchPower | float | CM |
| fachPower | fachPower | float | CMO |
| rac | rac | long | CM |
| sac | sac | long | М |
| uraList | uraList | GenericNetworkResourcesIRPSystem::AttributeTypes::LongSet | CM |
| AssociatedWith/ utranCell-IubLink | utranCellIubLink | GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference | М |
| cellMode | cellMode | GenericNRMAttributeTypes:: CellModeEnumType | М |
| operationalState | operationalState | StateManagementIRPOptConstDefs::OperationalStateTypeOpt | 0 |
| hsFlag | hsFlag | short | CM |
| hsEnable | hsEnable | short | CM |
| numOfHspdschs | numOfHspdschs | short | CM |
| numOfHsscchs | numOfHsscchs | short | 0 |
| frameOffset | frameOffset | short | CO |
| cellIndividualOffset | cellIndividualOffset | float | CO |
| hcsPrio | hcsPrio | short | CO |
| maximumAllowedUlTxPower | maximumAllowedUlTxPower | short | CO |
| snaInformation | snaInformation | GenericNetworkResourceMAttributeTypes:: snaInformationType | CO |
| qrxlevMin | qrxlevMin | short | CO |
| deltaQrxlevmin | deltaQrxlevmin | short | CO |
| qhcs | qhcs | short | CO |
| penaltyTime | penaltyTime | short | CO |
| referenceTimeDifferenceToCell | referenceTimeDifferenceToCell | short | CO |
| readSFNIndicator | readSFNIndicator | boolean | CO |
| restrictionStateIndicator | restrictionStateIndicator | GenericNetworkResourceMAttributeTypes:: restrictionStateEnumType | CO |
| dpcModeChangeSupportIndicator | dpcModeChangeSupportIndicator | GenericNetworkResourceMAttributeTypes:: dpcModeChangeSupportEnumType | CO |
| relatedTmaList | relatedTmaList | GenericNetworkResourceIRPSystem::AttributeTypes::MOReferenceSet | 0 |
| relatedSectorEquipment | relatedSectorEquipment | GenericNetworkResourceIRPSystem::AttributeTypes::MOReference | 0 |

NOTE 1: For all support qualifiers with the value "O", see attribute constraints in TS 32.642 [4]. NOTE 2: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4]. NOTE 3: For all support qualifiers with the value "CM" see attribute constraints in TS 32.642 [4].

A.2.2.3 IOC NodeBFunction

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

| NRM Attributes of IOC NodeBFunction in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|---|----------------------|---|----------------------|------|-------|
| id | nodeBFunctionId | string | М | M | - |
| ConnectedTo/ nodeBFunction-IubLink | nodeBFunctionIubLink | GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference | М | М | - |

A.2.2.4 IOC lubLink

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

| NRM Attributes of IOC lubLink in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|---------------------------------------|---|----------------------|------|-------|
| id | iubLinkId | string | М | M | - |
| AssociatedWith/ iubLink-UtranCell | iubLinkUtranCell | GenericNetworkResourcesIRPSystem::AttributeTypes:: MOReferenceSet | M | М | М |
| ConnectedTo/ iubLink-NodeBFunction | iubLinkNodeBFunction | GenericNetworkResourcesIRPSystem::AttributeTypes:: MOReference | М | М | - |
| AssociatedWith1/iubLink-ATMChannelTerminationPoint | iubLinkATMChannelTermination Point | GenericNetworkResourcesIRPSystem::AttributeTypes:: MOReference | M | М | - |

A.2.2.5 IOC ExternalUtranGenericCell

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

| NRM Attributes of IOC ExternalUtranGenericCell in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|---|-------------------------------|--|----------------------|------|-------|
| id | id | string | М | М | - |
| cId | cId | long | М | М | М |
| Mcc | mcc | short | M | М | М |
| Mnc | mnc | short | М | М | М |
| rncId | rncId | long | М | М | М |
| cellMode | cellMode | GenericNRMAttributeTypes::CellModeEnumType | М | М | - |
| lac | lac | long | М | М | М |
| rac | rac | long | CM | М | М |
| controllingRnc | controllingRnc | GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference | 0 | М | - |
| hsFlag | hsFlag | short | CM | М | - |
| frameOffset | frameOffset | short | CO | М | - |
| cellIndividualOffset | cellIndividualOffset | long | CO | М | - |
| hcsPrio | hcsPrio | short | CO | М | - |
| maximumAllowedUlTxPower | maximumAllowedUlTxPower | short | CO | М | - |
| qrxlevMin | qrxlevMin | short | CO | М | - |
| deltaQrxlevmin | deltaQrxlevmin | short | CO | М | - |
| Qhcs | qhcs | short | CO | М | - |
| penaltyTime | penaltyTime | short | CO | М | - |
| referenceTimeDifferenceToCell | referenceTimeDifferenceToCell | short | CO | М | - |
| readSFNIndicator | readSFNIndicator | boolean | CO | М | - |
| restrictionStateIndicator | restrictionStateIndicator | GenericNetworkResourceMAttributeTypes:: restrictionStateEnumType | СО | М | - |
| dpcModeChangeSupportIndicator | dpcModeChangeSupportIndicator | GenericNetworkResourceMAttributeTypes:: dpcModeChangeSupportEnumType | СО | М | - |
| snaInformation | snaInformation | GenericNetworkResourceMAttributeTypes:: snaInformationType | CO | М | - |

NOTE 1: For all support qualifiers with the value "O", see attribute constraints in TS 32.642 [4].

NOTE 2: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4]. NOTE 3: For all support qualifiers with the value "CM" see attribute constraints in TS 32.642 [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

| NRM Attributes of IOC ExternalRncFunction in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|-----------------------|--|----------------------|------|-------|
| id | externalRncFunctionId | string | М | М | - |
| mcc | mcc | long | М | М | M |
| mnc | mnc | long | М | М | М |
| rncId | rncId | long | М | М | М |
| controlledCellList | controlledCellList | GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet | 0 | М | - |

NOTE: For all support qualifiers with the value "O", see attribute constraints in TS 32.642 [4].

A.2.2.8 UtranCellFDD

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

| NRM Attributes of IOC UtranCellFDD in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|---|---------------------------------|--|----------------------|------|-------|
| uarfcnUl | uarfcnUl | short | 0 | М | М |
| uarfcnDl | uarfcnDl | short | 0 | M | М |
| primaryScramblingCode | primaryScramblingCode | short | 0 | M | М |
| primaryCpichPower | primaryCpichPower | float | 0 | М | М |
| primarySchPower | primarySchPower | float | 0 | М | М |
| secondarySchPower | secondarySchPower | float | 0 | М | М |
| bchPower | bchPower | float | 0 | М | М |
| aichPower | aichPower | float | 0 | М | - |
| qqualMin | qqualMin | float | CO | М | - |
| cellCapabilityContainerFDD | cellCapabilityContainerFDD | FDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType | СО | М | - |
| txDiversityIndicator | txDiversityIndicator | FDDNetworkResourceMAttributeTypes:: txDiversityIndicatorEnumType | СО | М | - |
| temporaryOffset1 | temporaryOffset1 | short | CO | М | - |
| temporaryOffset2 | temporaryOffset2 | short | CO | М | - |
| sttdSupportIndicator | sttdSupportIndicator | FDDNetworkResourceMAttributeTypes:: sttdSupportEnumType | СО | М | - |
| closedLoopMode1SupportIndicator | closedLoopMode1SupportIndicator | FDDNetworkResourceMAttributeTypes:: closedLoopMode1EnumType | СО | М | - |

A.2.2.9 UtranCellTDD

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

| NRM Attributes of IOC UtranCellTDD in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|---|---|--|----------------------|------|-------|
| uarfcn | uarfcn | short | 0 | M | M |
| cellParameterId | cellParameterId | long | 0 | М | М |
| primaryCcpchPower | primaryCcpchPower | float | 0 | М | M |
| cellCapabilityContainerTDD | cellCapabilityContainerTDD | TDDNetworkResourceMAttributeTypes:: CellCapabilityContainerTDDType | СО | М | - |
| sctdIndicator | sctdIndicator | TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType | СО | М | - |
| dpchConstantValue | dpchConstantValue | long | CO | М | - |
| NOTE: For all support qualifiers with the val | ue "CO" see attribute constraints in TS | 32.642 [4]. | | | |

A.2.2.10 UtranCellTDDLcr

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

| NRM Attributes of IOC UtranCelITDDLcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|-----------------|--|----------------------|------|-------|
| uarfcnLCRList | uarfcnLCRList | TDDNRMAttributeTypes:: UarfcnLCRListConfigStructType | 0 | М | М |
| dwPchPower | dwPchPower | float | 0 | М | M |
| fpachPower | fpachPower | float | 0 | М | 0 |
| tstdIndicator | tstdIndicator | TDDNRMAttributeTypes:: tstdIndicatorEnumType | CO | М | - |
| timeSlotLCRList | timeSlotLCRList | TDDNRMAttributeTypes:: TimeSlotListConfigStructType | 0 | М | М |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.11 UtranCellTDDHcr

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

| NRM Attributes of IOC UtranCellTDDHcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|------------------|------------------------------|-------------------|------|-------|
| schPower | schPower | float | 0 | М | M |
| temporaryOffset1 | temporaryOffset1 | short | CO | М | - |
| syncCase | syncCase | short | CO | М | - |
| timeSlotForSch | timeSlotForSch | short | CO | М | - |
| schTimeSlot | schTimeSlot | short | CO | М | |
| timeSlotHCRList | timeSlotHCRList | TDDNRMAttributeTypes:: | 0 | М | М |
| | | TimeSlotListConfigStructType | | | |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.12 ExternalUtranCellFDD

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

| NRM Attributes of IOC UtranCelITDDHcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|----------------------------|--|----------------------|------|-------|
| uarfcnUl | uarfcnUl | short | 0 | M | M |
| uarfcnDl | uarfcnDl | short | 0 | M | M |
| primaryScramblingCode | primaryScramblingCode | short | 0 | M | M |
| primaryCpichPower | primaryCpichPower | float | 0 | М | М |
| qqualMin | qqualMin | long | CO | М | - |
| cellCapabilityContainerFDD | cellCapabilityContainerFDD | FDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType | СО | М | - |
| txDiversityIndicator | txDiversityIndicator | FDDNetworkResourceMAttributeTypes:: txDiversityIndicatorEnumType | СО | | - |
| temporaryOffset1 | temporaryOffset1 | short | CO | М | - |
| temporaryOffset2 | temporaryOffset2 | short | CO | М | - |
| sttdSupportIndicator | sttdSupportIndicator | FDDNetworkResourceMAttributeTypes:: sttdSupportEnumType | СО | М | - |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.13 ExternalUtranCellTDD

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

| NRM Attributes of IOC UtranCelITDDHcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|----------------------------|--|----------------------|------|-------|
| uarfcn | uarfcn | short | 0 | М | М |
| cellParameterId | cellParameterId | long | 0 | М | - |
| primaryCcpchPower | primaryCcpchPower | float | 0 | М | - |
| cellCapabilityContainerTDD | cellCapabilityContainerTDD | TDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType | CO | М | - |
| sctdIndicator | sctdIndicator | TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType | CO | М | - |
| dpchConstantValue | dpchConstantValue | long | CO | М | - |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.14 ExternalUtranCellTDDHcr

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

| NRM Attributes of IOC UtranCellTDDLcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|------------------|------------------------------|-------------------|------|-------|
| temporaryOffset1 | temporaryOffset1 | short | CO | М | - |
| syncCase | syncCase | short | CO | М | - |
| timeSlotForSch | timeSlotForSch | short | CO | М | - |
| schTimeSlot | schTimeSlot | short | CO | М | - |
| timeSlotHCRList | timeSlotHCRList | TDDNRMAttributeTypes:: | 0 | М | - |
| | | TimeSlotListConfigStructType | | | |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.15 ExternalUtranCellTDDLcr

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

| NRM Attributes of IOC UtranCellTDDLcr in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|-----------------|--|-------------------|------|-------|
| tstdIndicator | tstdIndicator | TDDNRMAttributeTypes:: tstdIndicatorEnumType | 00 | М | - |
| timeSlotLCRList | timeSlotLCRList | TDDNRMAttributeTypes:: | 0 | М | - |
| | | TimeSlotListConfigStructType | | | |

NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4].

A.2.2.16 IOC UtranRelation

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

| NRM Attributes of IOC UtranRelation in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|--|-----------------|------------|-------------------|------|-------|
| id | utranRelationId | string | M | М | - |
| adjacentCell | adjacentCell | string | M | М | М |

A.2.2.17 IOC EP_IuCS

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

| NRM Attributes of IOC EP_luCS in TS | | SS Type | | | |
|---|-----------------------|----------------------|-------------------|------|-------|
| 32.642 [4] | SS Attributes | | Support Qualifier | Read | Write |
| connMscNumber | connMscNumber | unsigned short | СО | М | - |
| NOTE: For all support qualifiers with the | value "CO" see attrib | ute constraints in T | S 32.642 [4]. | | |

A.2.2.18 IOC EP_luPS

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

| NRM Attributes of IOC EP_luCS in TS | | SS Type | | | |
|--|----------------|----------------|-------------------|------|-------|
| 32.642 [4] | SS Attributes | | Support Qualifier | Read | Write |
| connSgsnNumber | connSgsnNumber | unsigned short | CO | М | • |
| NOTE: For all support qualifiers with the value "CO" see attribute constraints in TS 32.642 [4]. | | | | | |

A.2.2.19 IOC EP_lur

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

| NRM Attributes of IOC EP_lur in TS 32.642 [4] | SS Attributes | SS Type | Support Qualifier | Read | Write |
|---|-------------------------|-----------------------|-------------------|------|-------|
| connectedRncId | connectedRncId | unsigned short | CO | М | - |
| NOTE: For all support qualifiers with the | e value "CO" see attrik | oute constraints in 1 | ΓS 32.642 [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 rncFunctionId = "rncFunctionId";
         const string mcc= "mcc";
         const string mnc= "mnc";
         const string rncId= "rncId";
         const string siptoSupported= "siptoSupported";
        const string tceIDMappingInfoList= "tceIDMappingInfoList";
         const string sharNetTceMappingInfoList= "sharNetTceMappingInfoList";
      * Definitions for MO class UtranGenericCell
      interface UtranGenericCell : GenericNetworkResourcesNRMDefs::ManagedFunction
         const string CLASS = "UtranGenericCell";
         // Attribute Names
         const string id = "id";
         const string utranCellIubLink = "utranCellIubLink";
         const string cId= "cId";
         const string localCellId= "localCellId";
         const string maximumTransmissionPower= "maximumTransmissionPower";
         const string relatedAntennaList= "relatedAntennaList";
         const string primarySchPower= "primarySchPower";
         const string secondarySchPower= "secondarySchPower";
         const string bchPower= "bchPower";
         const string fpachPower= "fpachPower";
         const string pichPower= "pichPower";
         const string pchPower= "pchPower";
         const string fachPower= "fachPower";
         const string cellMode = "cellMode";
         const string lac= "lac";
         const string rac= "rac";
         const string sac= "sac";
         const string uraList= "uraList";
         const string operationalState = "operationalState";
         const string relatedTmaList = "relatedTmaList";
         const string hsFlag = "hsFlag";
         const string hsEnable = "hsEnable";
```

```
const string numOfHspdschs = "numOfHspdschs";
  const string numOfHsscchs = "numOfHsscchs";
  const string snaInformation = "snaInformation";
  const string frameOffset = "frameOffset";
  const string cellIndividualOffset = "cellIndividualOffset";
  const string hcsPrio = "hcsPrio";
  const string maximumAllowedUlTxPower = "maximumAllowedUlTxPower";
  const string qrxlevMin = "qrxlevMin";
  const string deltaQrxlevmin = "deltaQrxlevmin";
  const string qhcs = "qhcs";
  const string penaltyTime = "penaltyTime";
  const string referenceTimeDifferenceToCell = "referenceTimeDifferenceToCell";
  const string readSFNIndicator = "readSFNIndicator";
  const string restrictionStateIndicator = "restrictionStateIndicator";
  const string dpcModeChangeSupportIndicator = "dpcModeChangeSupportIndicator";
  const string relatedSectorEquipment = "relatedSectorEquipment";
};
* Definitions for MO class NodeBFunction
interface NodeBFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "NodeBFunction";
  // Attribute Names
  const string nodeBFunctionId = "nodeBFunctionId";
  const string nodeBFunctionIubLink = "nodeBFunctionIubLink";
};
* Definitions for MO class IubLink
interface IubLink : GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "IubLink";
  // Attribute Names
  //
  const string iubLinkId = "iubLinkId";
  const string iubLinkNodeBFunction = "iubLinkNodeBFunction";
  const string iubLinkUtranCell = "iubLinkUtranCell";
  const string iubLinkATMChannelTerminationPoint = "iubLinkATMChannelTerminationPoint";
* Definitions for MO class UtranRelation
* /
interface UtranRelation : GenericNetworkResourcesNRMDefs::Top
  const string CLASS = "UtranRelation";
  // Attribute Names
  const string utranRelationId = "utranRelationId";
  const string adjacentCell = "adjacentCell";
* Definitions for MO class ExternalUtranGenericCell
interface ExternalUtranGenericCell : GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "ExternalUtranGenericCell";
  // Attribute Names
  //
  const string id = "id";
  const string cId= "cId";
  const string mcc= "mcc";
  const string mnc= "mnc";
  const string rncId= "rncId";
  const string cellMode = "cellMode";
  const string uarfcn= "uarfcn";
  const string cellParameterId= "cellParameterId";
  const string lac= "lac";
  const string rac= "rac";
```

```
const string controllingRnc = "controllingRnc";
  const string hsFlag = "hsFlag";
  const string frameOffset = "frameOffset";
  const string cellIndividualOffset = "cellIndividualOffset";
   const string hcsPrio = "hcsPrio";
  const string maximumAllowedUlTxPower = "maximumAllowedUlTxPower";
  const string qrxlevMin = "qrxlevMin";
  const string deltaOrxlevmin = "deltaOrxlevmin";
  const string qhcs = "qhcs";
  const string penaltyTime = "penaltyTime";
  const string referenceTimeDifferenceToCell = "referenceTimeDifferenceToCell";
  const string readSFNIndicator = "readSFNIndicator";
  const string restrictionStateIndicator = "restrictionStateIndicator";
  const string dpcModeChangeSupportIndicator = "dpcModeChangeSupportIndicator";
};
* Definitions for MO class ExternalRncFunction
* /
interface ExternalRncFunction :
  GenericNetworkResourcesNRMDefs::ManagedFunction
  const string CLASS = "ExternalRncFunction";
   // Attribute Names
  //
  const string externalRncFunctionId = "externalRncFunctionId";
  const string mcc = "mcc";
  const string mnc = "mnc";
  const string rncId = "rncId";
  const string controlledCellList = "controlledCellList";
};
* Definitions for MO class UtranCellFDD
interface UtranCellFDD : UtranGenericCell
  const string CLASS = "UtranCellFDD";
  // Attribute Names
  const string uarfcnUl = "uarfcnUl";
  const string uarfcnDl = "uarfcnDl";
  const string primaryScramblingCode = "primaryScramblingCode";
  const string primaryCpichPower = "primaryCpichPower";
  const string primarySchPower = "primarySchPower";
  const string secondarySchPower = "secondarySchPower";
  const string bchPower = "bchPower";
  const string aichPower = "aichPower";
const string qqualMin = "qqualMin";
  const string cellCapabilityContainerFDD = "cellCapabilityContainerFDD";
  const string txDiversityIndicator = "txDiversityIndicator";
  const string temporaryOffset1 = "temporaryOffset1";
  const string temporaryOffset2 = "temporaryOffset2";
  const string sttdSupportIndicator = "sttdSupportIndicator";
  const string closedLoopModelSupportIndicator = "closedLoopModelSupportIndicator";
};
* Definitions for MO class UtranCellTDD
interface UtranCellTDD : UtranGenericCell
  const string CLASS = "UtranCellTDD";
  // Attribute Names
  const string uarfcn = "uarfcn";
  const string cellParameterId = "cellParameterId";
  const string primaryCcpchPower = "primaryCcpchPower";
  const string cellCapabilityContainerTDD = "cellCapabilityContainerTDD";
  const string sctdIndicator = "sctdIndicator";
  const string dpchConstantValue = "dpchConstantValue";
* Definitions for MO class UtranCellTDDLcr
* /
interface UtranCellTDDLcr : UtranCellTDD
  const string CLASS = "UtranCellTDDLcr";
  // Attribute Names
```

```
const string uarfcnLCRList = "uarfcnLCRList";
  const string fpachPower = "fpachPower";
  const string dwPchPower = "dwPchPower";
  const string tstdIndicator = "tstdIndicator";
  const string timeSlotLCRList = "timeSlotLCRList";
};
* Definitions for MO class UtranCellTDDHcr
interface UtranCellTDDHcr : UtranCellTDD
  const string CLASS = "UtranCellTDDHcr";
  // Attribute Names
  //
  const string schPower = "schPower";
  const string temporaryOffset1 = "temporaryOffset1";
  const string syncCase = "syncCase";
  const string timeSlotForSch = "timeSlotForSch";
  const string schTimeSlot = "schTimeSlot";
  const string timeSlotHCRList = "timeSlotHCRList";
};
\star Definitions for MO class <code>ExternalUtranCellFDD</code>
* /
interface ExternalUtranCellFDD : ExternalUtranGenericCell
{
  const string CLASS = "ExternalUtranCellFDD";
  // Attribute Names
  const string uarfcnUl = "uarfcnUl";
  const string uarfcnDl = "uarfcnDl";
  const string primaryScramblingCode = "primaryScramblingCode";
  const string primaryCpichPower = "primaryCpichPower";
  const string qqualMin = "qqualMin";
  const string cellCapabilityContainerFDD = "cellCapabilityContainerFDD";
  const string txDiversityIndicator = "txDiversityIndicator";
  const string temporaryOffset1 = "temporaryOffset1";
  const string temporaryOffset2 = "temporaryOffset2";
  const string sttdSupportIndicator = "sttdSupportIndicator";
  const string closedLoopModelSupportIndicator = "closedLoopModelSupportIndicator";
};
* Definitions for MO class ExternalUtranCellTDD
interface ExternalUtranCellTDD : ExternalUtranGenericCell
  const string CLASS = "ExternalUtranCellTDD";
  // Attribute Names
  //
  const string uarfcn = "uarfcn";
  const string cellParameterId = "cellParameterId";
  const string primaryCcpchPower = "primaryCcpchPower";
  const string cellCapabilityContainerTDD = "cellCapabilityContainerTDD";
  const string sctdIndicator = "sctdIndicator";
  const string dpchConstantValue = "dpchConstantValue";
};
* Definitions for MO class ExternalUtranCellTDDHcr
* /
interface ExternalUtranCellTDDHcr : ExternalUtranCellTDD
  const string CLASS = "ExternalUtranCellTDDHcr";
  // Attribute Names
  //
  const string temporaryOffset1 = "temporaryOffset1";
  const string syncCase = "syncCase";
  const string timeSlotForSch = "timeSlotForSch";
  const string schTimeSlot = "schTimeSlot";
  const string timeSlotHCRList = "timeSlotHCRList";
};
* Definitions for MO class ExternalUtranCellTDDLcr
* /
interface ExternalUtranCellTDDLcr : ExternalUtranCellTDD
  const string CLASS = "ExternalUtranCellTDDLcr";
```

```
// Attribute Names
         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
        // Attribute Name
         const string CLASS = "EP_Iur";
         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;
};
      struct SharNetTceMappingInfo
      long PLMNId;
      short tceID;
      string tceIPAddr;
      typedef sequence<SharNetTceMappingInfo> SharNetTceMappingInfoListType;
};
    * This module adds datatype definitions for FDD mode attributes
    {\star}\, used in the NRM which are not the basic datatypes already defined
       in CORBA.
    * /
   module FDDNRMAttributeTypes
      enum SttdSupportEnumType
       active,
       inactive
      enum txDiversityIndicatorEnumType
       none,
       \verb"primaryCpichBroadcastFrom2Antennas",
       sttdAppliedToPrimaryCCPCH,
       tstdAppliedToPrimarySchAndSecondarySch
      enum ClosedLoopMode1EnumType
       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;
    };
    {\star}\,{\,} 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

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].

B.1 Architectural features

The overall architectural feature of UTRAN Network Resources IRP is specified in 3GPP TS 32.642 [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

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 32.642 [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

Not present in the current version of this specification.

B.3.3 XML schema "utranNrm.xsd"

```
<?xml version="1.0" encoding="UTF-8"?>
  3GPP TS 32.646 UTRAN Network Resources IRP
  Bulk CM Configuration data file NRM-specific XML schema
 utranNrm.xsd
<schema
 targetNamespace=
"http://www.3gpp.org/ftp/specs/archive/32 series/32.646#utranNrm"
  elementFormDefault="qualified"
 xmlns="http://www.w3.org/2001/XMLSchema"
 xmlns:xn=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.626#genericNrm"
  xmlns:un=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.646#utranNrm"
 xmlns:qn=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.656#geranNrm"
"http://www.3gpp.org/ftp/specs/archive/32 series/32.676#stateManagementIRP"
  <import</pre>
   namespace=
"http://www.3gpp.org/ftp/specs/archive/32 series/32.626#genericNrm"
  <import</pre>
   namespace=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.656#geranNrm"
 />
  <import</pre>
   namespace=
"http://www.3gpp.org/ftp/specs/archive/32 series/32.676#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">
    <element name="timeSlot" maxOccurs="15">
      <complexType>
        <all>
          <element name="timeSlotId" minOccurs="1">
            <simpleType>
              <restriction base="integer">
                <minInclusive value="0"/>
<maxInclusive value="14"/>
              </restriction>
            </simpleType>
          </element>
          <element name="timeSlotDirection" minOccurs="1">
            <simpleType>
              <restriction base="string">
                <enumeration value="UL"/>
                <enumeration value="DL"/>
              </restriction>
            </simpleType>
          </element>
          <element name="timeSlotStatus" minOccurs="1">
            <simpleType>
              <restriction base="string">
                <enumeration value="Active"/>
                <enumeration value="Not-Active"/>
              </restriction>
            </simpleType>
          </element>
        </all>
      </complexType>
    </element>
  </sequence>
</complexType>
<simpleType name="restrictionStateIndicator">
  <restriction base="string">
    <enumeration value="cellReservedForOperatorUse"/>
    <enumeration value="cellAccessible"/>
   </restriction>
</simpleType>
<simpleType name="dpcModeChangeSupport">
  <restriction base="string">
```

```
<enumeration value="dpcModeChangeSupported"/>
    <enumeration value="dpcModeChangeNotSupported"/>
  </restriction>
</simpleType>
<simpleType name="sttdSupport">
  <restriction base="string">
    <enumeration value="active"/>
    <enumeration value="inactive"/>
   </restriction>
</simpleType>
<simpleType name="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"/>
   </restriction>
 </simpleType>
 <simpleType name="syncCase">
   <restriction base="string">
      <enumeration value="SCH and PCCPCH allocated in a single TS"/>
      <enumeration value="SCH and PCCPCH allocated in two TS, TS#k and TS#k+8"/>
    </restriction>
  </simpleType>
 <simpleType name="hsFlag">
   <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
  </simpleType>
 <simpleType name="hsEnable">
   <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
 </simpleType>
  <simpleType name="numOfHspdschs">
   <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="95"/>
    </restriction>
  </simpleType>
 <simpleType name="numOfHsscchs">
   <restriction base="integer">
     <minInclusive value="1"/>
      <maxInclusive value="32"/>
   </restriction>
  </simpleType>
 <simpleType name="eightOctets">
   <restriction base="hexBinary">
      <length value="8"/>
    </restriction>
 </simpleType>
  <complexType name="uarfcnLCRList">
   <sequence>
      <element name="uarfcnLCR" maxOccurs="11">
        <complexType>
          <all>
            <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="1"/>
            <element name="timeSlotLCRList" type="un:timeSlotLCRList" minOccurs="0"/>
          </all>
        </complexType>
      </element>
    </sequence>
  </complexType>
<simpleType name="siptoSupported">
   <restriction base="integer">
     <minInclusive value="0"/>
      <maxInclusive value="1"/>
    </restriction>
  </simpleType>
 <complexType name="TceIDMappingInfo">
   <sequence>
      <element name="tceID" type="short"/>
      <element name="tceIPAddr" type="string"/>
  </complexType>
  <complexType name="TceIDMappingInfoList">
```

```
<element name="tceIDMappingInfo" type="en:TceIDMappingInfo" minOccurs="0"/>
    </sequence>
  </complexType>
  <complexType name="SharNetTceMappingInfo">
    <sequence>
      <element name="pLMNId" type="long"/>
      <element name="tceID" type="short"/>
      <element name="tceIPAddr" type="string"/>
    </sequence>
  </complexType>
  <complexType name="SharNetTceMappingInfo">
    <sequence>
      <element name="sharNetTceMappingInfo" type="un:SharNetTceMappingInfo" minOccurs="0"/>
    </sequence>
  </complexType>
 <!-- UTRAN Network Resources IRP NRM class associated XML elements -->
  <element
    name="RncFunction"
    \verb|substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"|
    <complexTvpe>
      <complexContent>
        <extension base="xn:NrmClass">
          <seauence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" type="string" minOccurs="0"/>
                   <element name="mcc" type="string" minOccurs="0"/>
<element name="mnc" type="string" minOccurs="0"/>
                   <element name="rncId" type="string" minOccurs="0"/>
                   <element name="siptoSupported" type= "un:siptoSupported">
                   <element name="tceIDMappingInfoList" type="un:TceIDMappingInfoList"</pre>
minOccurs="0"/>
                   <element name="sharNetTceMappingInfoList" type="un:SharNetTceMappingInfoList"</pre>
minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="un:UtranCellFDD"/>
              <element ref="un:UtranCellTDDLcr"/>
              <element ref="un:UtranCellTDDHcr"/>
              <element ref="un:IubLink"/>
              <element ref="un:RncFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
  <element
    name="NodeBFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                   <element name="userLabel" type="string" minOccurs="0"/>
                   <element name="nodeBFunctionIubLink" type="string" minOccurs="0"/>
                 </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="un:NodeBFunctionOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
```

```
</extension>
    </complexContent>
  </complexType>
</element>
<element name="UtranGenericCell" abstract="true">
 <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <a11>
                <element name="userLabel" type="string" minOccurs="0"/>
                <element name="cId" type="un:cId" minOccurs="0"/>
                <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                <element name="maximumTransmissionPower"</pre>
                          type="un:maximumTransmissionPower" minOccurs="0"/>
                <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                <element name="lac" type="un:lac" minOccurs="0"/>
                <element name="rac" type="un:rac" minOccurs="0"/>
                <element name="sac" type="un:sac" minOccurs="0"/>
<element name="uraList" type="un:uraList" minOccurs="0"/>
                <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                <element name="operationalState"</pre>
                          type="sm:operationalStateType" minOccurs="0"/>
                <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                <element name="cellIndividualOffset"</pre>
                         type="un:cellIndividualOffset" minOccurs="0"/>
                <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                <element name="maximumAllowedUlTxPower"</pre>
                         type="un:maximumAllowedUlTxPower" minOccurs="0"/>
                <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                <element name="referenceTimeDifferenceToCell"</pre>
                         type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                <element name="restrictionStateIndicator"</pre>
                         type="un:restrictionStateIndicator" minOccurs="0"/>
                <element name="dpcModechangeSupportIndicator"</pre>
                          type="un:dpcModeChangeSupport" minOccurs="0"/>
                <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranRelation"/>
            <element ref="gn:GsmRelation"/>
            <element ref="un:UtranGenericCellOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="UtranCellFDD">
 <complexType>
   <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
```

```
<!-- Inherited attributes from UtranGenericCell -->
                 <element name="userLabel" type="string" minOccurs="0"/>
                 <element name="cId" type="un:cId" minOccurs="0"/>
                 <element name="localCellId" type="un:localCellId" minOccurs="0"/>
                 <element name="maximumTransmissionPower"</pre>
                          type="un:maximumTransmissionPower" minOccurs="0"/>
                 <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                 <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                 <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                 <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                 <element name="lac" type="un:lac" minOccurs="0"/>
                 <element name="rac" type="un:rac" minOccurs="0"/>
<element name="sac" type="un:sac" minOccurs="0"/>
                 <element name="uraList" type="un:uraList" minOccurs="0"/>
                 <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                 <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                 <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                 <element name="operationalState"</pre>
                         type="sm:operationalStateType" minOccurs="0"/>
                 <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                 <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                 <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                 <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
<element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                 <element name="cellIndividualOffset"</pre>
                          type="un:cellIndividualOffset" minOccurs="0"/>
                 <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                 <element name="maximumAllowedUlTxPower"</pre>
                          type="un:maximumAllowedUlTxPower" minOccurs="0"/>
                 <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                 <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                 <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                 <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                 <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                 <element name="referenceTimeDifferenceToCell"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                 <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                 <element name="restrictionStateIndicator"</pre>
                          type="un:restrictionStateIndicator" minOccurs="0"/>
                 <element name="dpcModechangeSupportIndicator"</pre>
                 type="un:dpcModeChangeSupport" minOccurs="0"/>
<element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
                 <!-- End of inherited attributes from UtranGenericCell -->
                 <element name="uarfcnUl" type="un:uarfcnAnyMode" minOccurs="0"/>
                 <element name="uarfcnDl" type="un:uarfcnAnyMode" minOccurs="0"/>
                 <element name="primaryScramblingCode" type="un:primaryScramblingCode"</pre>
                          minOccurs="0"/>
                 <element name="primaryCpichPower" type="un:primaryCpichPower" minOccurs="0"/>
                 <element name="primarySchPower" type="un:primarySchPower" minOccurs="0"/>
                 <element name="secondarySchPower" type="un:secondarySchPower" minOccurs="0"/>
                 <element name="bchPower" type="un:bchPower" minOccurs="0"/>
                 <element name="aichPower" type="un:aichPower" minOccurs="0"/>
                 <element name="qqualMin" type="un:qqualMin" minOccurs="0"/>
                 <element name="cellCapabilityContainerFDD" type="un:cellCapabilityContainerFDD"</pre>
                              minOccurs="0"/>
                 <element name="txDiversityIndicator" type="un:txDiversityIndicator"</pre>
                              minOccurs="0"/>
                 <element name="temporaryOffset1" type="un:temporaryOffset1" minOccurs="0"/>
                 <element name="temporaryOffset2" type="un:temporaryOffset2" minOccurs="0"/>
                 <element name="sttdSupportIndicator" type="un:sttdSupport" minOccurs="0"/>
                 <element name="closedLoopModelSupportIndicator" type="un:closedLoopMode1"</pre>
                          minOccurs="0"/>
                 </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:UtranRelation"/>
            <element ref="gn:GsmRelation"/>
            <element ref="un:UtranCellFDDOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
```

```
<element name="UtranCellTDD" abstract="true">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <!-- Inherited attributes from UtranGenericCell -->
                  <element name="userLabel" type="string" minOccurs="0"/>
                  <element name="cId" type="un:cId" minOccurs="0"/>
<element name="localCellId" type="un:localCellId" minOccurs="0"/>
                  <element name="maximumTransmissionPower"</pre>
                            type="un:maximumTransmissionPower" minOccurs="0"/>
                  <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                  <element name="pichPower" type="un:pichPower" minOccurs="0"/>
                  <element name="pchPower" type="un:pchPower" minOccurs="0"/>
                  <element name="fachPower" type="un:fachPower" minOccurs="0"/>
                  <element name="lac" type="un:lac" minOccurs="0"/>
<element name="rac" type="un:rac" minOccurs="0"/>
                  <element name="sac" type="un:sac" minOccurs="0"/>
                   <element name="uraList" type="un:uraList" minOccurs="0"/>
                  <element name="utranCellIubLink" type="xn:dn" minOccurs="0"/>
                  <element name="relatedAntennaList" type="xn:dnList" minOccurs="0"/>
                  <element name="relatedTmaList" type="xn:dnList" minOccurs="0"/>
                  <element name="operationalState"</pre>
                            type="sm:operationalStateType" minOccurs="0"/>
                  <element name="hsFlag" type="un:hsFlag" minOccurs="0"/>
                  <element name="hsEnable" type="un:hsEnable" minOccurs="0"/>
                  <element name="numOfHspdschs" type="un:numOfHspdschs" minOccurs="0"/>
                  <element name="numOfHsscchs" type="un:numOfHsscchs" minOccurs="0"/>
                  <element name="frameOffset" type="un:frameOffset" minOccurs="0"/>
                  <element name="cellIndividualOffset"</pre>
                            type="un:cellIndividualOffset" minOccurs="0"/>
                  <element name="hcsPrio" type="un:hcsPrio" minOccurs="0"/>
                  <element name="maximumAllowedUlTxPower"</pre>
                            type="un:maximumAllowedUlTxPower" minOccurs="0"/>
                  <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                  <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                  <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                  <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                  <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                  <element name="referenceTimeDifferenceToCell"</pre>
                           type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                  <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                  <element name="restrictionStateIndicator"</pre>
                            type="un:restrictionStateIndicator" minOccurs="0"/>
                  <element name="dpcModechangeSupportIndicator"</pre>
                            type="un:dpcModeChangeSupport" minOccurs="0"/>
                  <element name="relatedSectorEquipment" type="xn:dn" minOccurs="0"/>
                  <!-- End of inherited attributes from UtranGenericCell -->
                  <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                  <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                  <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                  <element name="cellCapabilityContainerTDD" type="un:cellCapabilityContainerTDD"</pre>
                           minOccurs="0"/>
                  <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                  <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
                  </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="un:UtranRelation"/>
              <element ref="gn:GsmRelation"/>
              <element ref="un:UtranCellTDDOptionallyContainedNrmClass"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
<element name="UtranCellTDDLcr">
    <complexType>
      <complexContent>
```

```
<extension base="xn:NrmClass">
    <sequence>
      <element name="attributes" minOccurs="0">
        <complexType>
           <all>
             <!-- Inherited attributes from UtranGenericCell via UtranCellTDD --> <element name="userLabel" type="string" minOccurs="0"/>
             <element name="cId" type="un:cId" minOccurs="0"/>
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                   <!-- Inherited attributes from UtranCellTDD -->
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                <element name="qhcs" type="un:qhcs" minOccurs="0"/>
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                <!-- Inherited attributes from ExternalUtranCellTDD -->
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                         minOccurs="0"/>
                 <element name="snaInformation" type="un:snaInformation" minOccurs="0"/>
                 <element name="qrxlevMin" type="un:qrxlevMin" minOccurs="0"/>
                 <element name="deltaQrxlevmin" type="un:deltaQrxlevmin" minOccurs="0"/>
                 <element name="qhcs" type="un:qhcs" minOccurs="0"/>
                 <element name="penaltyTime" type="un:penaltyTime" minOccurs="0"/>
                 <element name="referenceTimeDifferenceToCell"</pre>
                          type="un:referenceTimeDifferenceToCell" minOccurs="0"/>
                 <element name="readSFNIndicator" type="un:readSFNIndicator" minOccurs="0"/>
                 <element name="restrictionStateIndicator" type="un:restrictionStateIndicator"</pre>
                          minOccurs="0"/>
                 <element name="dpcModeChangeSupportIndicator" type="un:dpcModeChangeSupport"</pre>
                          minOccurs="0"/>
                 <!-- End of inherited attributes from ExternalUtranGenericCell -->
                 <!-- Inherited attributes from ExternalUtranCellTDD -->
                 <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                 <element name="cellParameterId" type="un:cellParameterId" minOccurs="0"/>
                 <element name="primaryCcpchPower" type="un:primaryCcpchPower" minOccurs="0"/>
                 <element name="cellCapabilityContainerTDD"</pre>
                          type="un:cellCapabilityContainerTDD" minOccurs="0"/>
                 <element name="sctdIndicator" type="un:sctdIndicator" minOccurs="0"/>
                 <element name="dpchConstantValue" type="un:dpchConstantValue" minOccurs="0"/>
<!-- End of inherited attributes from ExternalUtranCellTDD -->
                 <element name="tstdIndicator" type="un:tstdIndicator" minOccurs="0"/>
                 <element name="timeSlotLCRList" type="un:timeSlotLCRList" minOccurs="0"/>
               </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="un:ExternalUtranCellTDDLcrOptionallyContainedNrmClass"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
name="ExternalRncFunction"
substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
          <element name="attributes" minOccurs="0">
            <complexType>
```

```
<all>
                   <element name="userLabel" type="string" minOccurs="0"/>
                   <element name="mcc" type="string" minOccurs="0"/>
                   <element name="mnc" type="string" minOccurs="0"/>
                   <element name="rncId" type="string" minOccurs="0"/>
                   <element name="controlledCellList" type="xn:dnList" minOccurs="0"/>
                 </all>
               </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="un:ExternalUtranCellFDD"/>
               <element ref="un:ExternalUtranCellTDDHcr"/>
              <element ref="un:ExternalUtranCellTDDLcr"/>
               <element ref="un:ExternalRncFunctionOptionallyContainedNrmClass"/>
               <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
  <element name="EP Iur">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
               <complexTvpe>
                 <all>
                   <element name="connectedRncId" type="string" minOccurs="0"/>
               </complexType>
            </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
  <element name="RncFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
 <element name="NodeBFunctionOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
  <element name="UtranGenericCellOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
  <element name="UtranCellFDDOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
  <element name="UtranCellTDDOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
 <element name="UtranCellTDDLcrOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
<element name="UtranCellTDDHcrOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
  <element name="IubLinkOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
  <element name="UtranRelationOptionallyContainedNrmClass" type="xn:NrmClass" abstract="true"/>
 <element name="ExternalUtranGenericCellOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellFDDOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalUtranCellTDDHcrOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
  \verb| <element name="External Utran Cell TDDL cr Optionally Contained Nrm Class"| \\
           type="xn:NrmClass" abstract="true"/>
  <element name="ExternalRncFunctionOptionallyContainedNrmClass"</pre>
           type="xn:NrmClass" abstract="true"/>
</schema>
```

Annex A (informative): Change history

| Change history | | | | | | | | | |
|----------------|-------|-----------|-----|-----|--|-----|--------|--------|--|
| Date | TSG# | TSG Doc. | CR | Rev | Subject/Comment | Cat | Old | New | |
| 2012-10 | | | | | First draft | | | 0.1.0 | |
| 2012-12 | SA#58 | | | | Presented for information and approval | | 0.1.0 | 1.0.0 | |
| 2012-12 | | | | | New version after approval | | 1.0.0 | 11.0.0 | |
| 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 | |

History

| Document history | | | | | | | |
|------------------|--------------|-------------------------|--|--|--|--|--|
| V11.0.0 | January 2013 | Publication | | | | | |
| V11.1.0 | April 2013 | Publication (Withdrawn) | | | | | |
| V11.1.1 | July 2013 | Publication | | | | | |
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