ETSI TS 132 643 V8.4.0 (2012-09)

Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Configuration Management (CM);
UTRAN network resources Integration Reference Point (IRP);
Common Object Request Broker Architecture (CORBA)
Solution Set (SS)
(3GPP TS 32.643 version 8.4.0 Release 8)

Reference
RTS/TSGS-0532643v840

Keywords
LTE,UMTS

ETSI

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Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

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Contents

Foreword

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

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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:

32.641: "Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP); Requirements".

32.642: "Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP); Network Resource Model (NRM)".

32.643: "Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)".

32.645: "Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP); Bulk CM eXtensible Markup Language (XML) file format definition".

Configuration Management (CM), in general, provides the operator with the ability to assure correct and effective operation of the 3G-network as it evolves. CM actions have the objective to control and monitor the actual configuration on the NEs and NRs, and they may be initiated by the operator or functions in the OSs or NEs.

CM actions may be requested as part of an implementation programme (e.g. additions and deletions), as part of an optimisation programme (e.g. modifications), and to maintain the overall Quality of Service (QoS). The CM actions are initiated either as a single action on a Network Element (NE) of the 3G-network or as part of a complex procedure involving actions on many NEs.

The Itf-N interface for Configuration Management is built up by a number of Integration Reference Points (IRPs) and a related Name Convention, which realise the functional capabilities over this interface. The basic structure of the IRPs is defined in 3GPP TS 32.101 [1] and 3GPP TS 32.102 [2].For CM, a number of IRPs (and the Name Convention) are defined herein, used by this as well as other technical specifications for telecom management produced by 3GPP.

1 Scope

The purpose of this UTRAN Network Resources IRP: CORBA Solution Set is to define the mapping of the IRP information model (see TS 32.642 [4]) to the protocol specific details necessary for implementation of this IRP in a CORBA/IDL environment.

This Solution Set specification is related to 3GPP TS 32.642 V8.5.X.

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 32.642: "Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Network Resource Model (NRM)".

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

[6] OMG Notification Service, Version 1.0.

[7] OMG CORBA services: Common Object Services Specification, Update: November 22, 1996.

[8] The Common Object Request Broker: Architecture and Specification (for specification of valid version, see [1]).

[9] 3GPP TS 32.303: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)".

[10] 3GPP TS 32.111-3: "Telecommunication management; Fault Management; Part 3: Alarm Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)".

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 TS 32.642 [4].

3.2 Abbreviations

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

CORBA	Common Object Request Broker Architecture
DN	Distinguished Name
IS	Information Service
IDL	Interface Definition Language (OMG)
IOC	Information Object Class
IRP	Integration Reference Point
MO	Managed Object
MOC	Managed Object Class
NRM	Network Resource Model
OMG	Object Management Group
SS	Solution Set

4 Architectural features

The overall architectural feature of UTRAN Network Resources IRP is specified in TS 32.642 [4].
This clause specifies features that are specific to the CORBA SS.

4.1 Notifications

Notifications are sent according to the Notification IRP: CORBA SS (see 3GPP TS 32.303 [9]).

5 Mapping

5.1 General mappings

Attributes modelling associations as defined in the NRM (here also called 'reference attributes') are in this SS mapped to attributes. The names of the reference attributes in the NRM are mapped to the corresponding attribute names in the MOC. When the cardinality for an association is 0..1 or 1..1 the datatype for the reference attribute is defined as an MOReference. The value of an MO reference contains the distinguished name of the associated MO. When the cardinality for an association allows more than one referred MO, the reference attribute will be of type MOReferenceSet, which contains a sequence of MO references.

5.2 UTRAN NRM Information Object Class (IOC) mapping

5.2.1 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
rncFunctionId	rncFunctionId	string	M	M	-
mcc	mcc	long	M	M	M
mnc	mnc	long	M	M	M
rncId	rncId	long	M	M	M

5.2.2 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	Read	Write
id	id	string	M	M	_
cId	cId	long	M	M	M
localCellId	localCellId	long	M	M	M
retAntennaFunctionList	retAntennaFunctionList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet	O	M	M
maximumTransmissionPower	maximumTransmissionPower	short	M	M	M
lac	lac	long	M	M	M
pichPower	pichPower	float	O	M	O
pchPower	pchPower	float	O	M	O
fachPower	fachPower	float	O	M	O
rac	rac	long	O	M	M
sac	sac	long	M	M	M
uraList	uraList	GenericNetworkResourcesIRPSystem::AttributeTypes::LongSet	O	M	M
AssociatedWith/ utranCell-IubLink	utranCellIubLink	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference	M	M	-
cellMode	cellMode	GenericNRMAttributeTypes:: CellModeEnumType	M	M	-
operationalState	operationalState	StateManagementIRPOptConstDefs::OperationalStateTypeOpt	O	M	-
hsFlag	hsFlag	short	O	M	-
hsEnable	hsEnable	short	O	M	-
numOfHspdschs	numOfHspdschs	short	O	M	-
numOfHsscchs	numOfHsscchs	short	O	M	-
frameOffset	frameOffset	short	CO	M	-
cellIndividualOffset	cellIndividualOffset	short	CO	M	-
hcsPrio	hcsPrio	short	CO	M	-
maximumAllowedUlTxPower	maximumAllowedUlTxPower	short	CO	M	-
snaInformation	snaInformation	GenericNetworkResourceMAttributeTypes:: snaInformationType	CO	M	-
qrxlevMin	qrxlevMin	short	CO	M	-
deltaQrxlevmin	deltaQrxlevmin	short	CO	M	-
qhcs	qhcs	short	CO	M	-
penaltyTime	penaltyTime	short	CO	M	-
referenceTimeDifferenceToCell	referenceTimeDifferenceToCell	short	CO	M	-
readSFNIndicator	readSFNIndicator	boolean	CO	M	-
restrictionStateIndicator	restrictionStateIndicator	GenericNetworkResourceMAttributeTypes:: restrictionStateEnumType	CO	M	-
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNetworkResourceMAttributeTypes:: dpcModeChangeSupportEnumType	CO	M	-
tmaFunctionList	tmaFunctionList	GenericNetworkResourceIRPSystem::AttributeTypes::MOReferenceSet	O	M	-
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].					

5.2.3 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
nodeBFunctionId	nodeBFunctionId	string	M	M	-
ConnectedTo/ nodeBFunction-IubLink	nodeBFunctionIubLink	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference	M	M	-

5.2.4 IOC IubLink

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

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

5.2.6 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	M	M	-
cId	cId	long	M	M	M
mcc	mcc	short	M	M	M
mnc	mnc	short	M	M	M
rncId	rncId	long	M	M	M
cellMode	cellMode	GenericNRMAttributeTypes::CellModeEnumType	M	M	-
lac	lac	long	M	M	M
rac	rac	long	O	M	M
controllingRnc	controllingRnc	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference	O	M	-
hsFlag	hsFlag	short	O	M	-
frameOffset	frameOffset	short	CO	M	-
cellIndividualOffset	cellIndividualOffset	short	CO	M	-
hcsPrio	hcsPrio	short	CO	M	-
maximumAllowedUlTxPower	maximumAllowedUlTxPower	short	CO	M	-
qrxlevMin	qrxlevMin	short	CO	M	-
deltaQrxlevmin	deltaQrxlevmin	short	CO	M	-
qhcs	qhcs	short	CO	M	-
penaltyTime	penaltyTime	short	CO	M	-
referenceTimeDifferenceToCell	referenceTimeDifferenceToCell	short	CO	M	-
readSFNIndicator	readSFNIndicator	boolean	CO	M	-
restrictionStateIndicator	restrictionStateIndicator	GenericNetworkResourceMAttributeTypes:: restrictionStateEnumType	CO	M	-
dpcModeChangeSupportIndicator	dpcModeChangeSupportIndicator	GenericNetworkResourceMAttributeTypes:: dpcModeChangeSupportEnumType	CO	M	-
snaInformation	snaInformation	GenericNetworkResourceMAttributeTypes:: snaInformationType	CO	M	-
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].					

5.2.7 IOC AntennaFunction

NRM Attributes of IOC antennaFunction in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
antennaFunctionId	antennaId	string	M	M	-
retUtranCellList	retUtranCellList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet	O	M	M
retTiltValue	retTiltValue	short	O	M	M
bearing	bearing	short	O	M	M
maxTiltValue	maxTiltValue	short	O	M	M
minTiltValue	minTiltValue	short	O	M	M
mechanicalOffset	mechanicalOffset	short	O	M	M
retGroupName	retGroupName	string	O	M	M
height	height	short	O	M	M
baseElevation	baseElevation	short	O	M	O
latitude	latitude	long	O	M	O
longitude	longitude	long	O	M	O
maxAzimuthValue	maxAzimuthValue	short	O	M	M
minAzimuthValue	minAzimuthValue	short	O	M	M
horizBeamwidth	horizBeamwidth	short	O	M	M
vertBeamwidth	vertBeamwidth	short	O	M	M
patternLabel	patternLabel	string	O	M	O

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

5.2.8 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
externalRncFunctionId	externalRncFunctionId	string	M	M	-
mcc	mcc	long	M	M	M
mnc	mnc	long	M	M	M
rncId	rncId	long	M	M	M
controlledCellList	controlledCellList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet	O	M	-

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

5.2.9 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	O	M	M
uarfcnDl	uarfcnDl	short	O	M	M
primaryScramblingCode	primaryScramblingCode	short	O	M	M
primaryCpichPower	primaryCpichPower	float	O	M	M
primarySchPower	primarySchPower	float	O	M	M
secondarySchPower	secondarySchPower	float	O	M	M
bchPower	bchPower	float	O	M	M
aichPower	aichPower	float	O	M	-
qqualMin	qqualMin	float	CO	M	-
cellCapabilityContainerFDD	cellCapabilityContainerFDD	FDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType	CO	M	-
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAttributeTypes:: txDiversityIndicatorEnumType	CO	M	-
temporaryOffset1	temporaryOffset1	short	CO	M	-
temporaryOffset2	temporaryOffset2	short	CO	M	-
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAttributeTypes:: sttdSupportEnumType	CO	M	-
closedLoopMode1SupportIndicator	closedLoopMode1SupportIndicator	FDDNetworkResourceMAttributeTypes:: closedLoopMode1EnumType	CO	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.10 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	O	M	M
cellParameterId	cellParameterId	long	O	M	M
primaryCcpchPower	primaryCcpchPower	float	O	M	M
cellCapabilityContainerTDD	cellCapabilityContainerTDD	TDDNetworkResourceMAttributeTypes:: CellCapabilityContainerTDDType	CO	M	-
sctdIndicator	sctdIndicator	TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType	CO	M	-
dpchConstantValue	dpchConstantValue	long	CO	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.11 UtranCellTDDLcr

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

NRM Attributes of IOC UtranCellTDDLcr in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
uarfcnLCRList	uarfcnLCRList	TDDNRMAttributeTypes:: UarfcnLCRListConfigStructType	O	M	M
dwPchPower	dwPchPower	float	O	M	M
fpachPower	fpachPower	float	O	M	O
tstdIndicator	tstdIndicator	TDDNRMAttributeTypes:: tstdIndicatorEnumType	CO	M	-
timeSlotLCRList	timeSlotLCRList	TDDNRMAttributeTypes:: TimeSlotListConfigStructType	O	M	M
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.12 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	O	M	M
temporaryOffset1	temporaryOffset1	short	CO	M	-
syncCase	syncCase	short	CO	M	-
timeSlotForSch	timeSlotForSch	short	CO	M	-
schTimeSlot	schTimeSlot	short	CO	M	
timeSlotHCRList	timeSlotHCRList	TDDNRMAttributeTypes:: TimeSlotListConfigStructType	O	M	M
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.13 ExternalUtranCellFDD

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

NRM Attributes of IOC UtranCellTDDHcr in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
uarfcnUl	uarfcnUl	short	O	M	M
uarfcnDl	uarfcnDl	short	O	M	M
primaryScramblingCode	primaryScramblingCode	short	O	M	M
primaryCpichPower	primaryCpichPower	float	O	M	M
qqualMin	qqualMin	long	CO	M	-
cellCapabilityContainerFDD	cellCapabilityContainerFDD	FDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType	CO	M	-
txDiversityIndicator	txDiversityIndicator	FDDNetworkResourceMAttributeTypes:: txDiversityIndicatorEnumType	CO		-
temporaryOffset1	temporaryOffset1	short	CO	M	-
temporaryOffset2	temporaryOffset2	short	CO	M	-
sttdSupportIndicator	sttdSupportIndicator	FDDNetworkResourceMAttributeTypes:: sttdSupportEnumType	CO	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.14 ExternalUtranCellTDD

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

NRM Attributes of IOC UtranCellTDDHcr in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
uarfcn	uarfcn	short	O	M	M
cellParameterId	cellParameterId	long	O	M	-
primaryCcpchPower	primaryCcpchPower	float	O	M	-
cellCapabilityContainerTDD	cellCapabilityContainerTDD	TDDNetworkResourceMAttributeTypes:: CellCapabilityContainerFDDType	CO	M	-
sctdIndicator	sctdIndicator	TDDNetworkResourceMAttributeTypes:: sctdSupportEnumType	CO	M	-
dpchConstantValue	dpchConstantValue	long	CO	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.15 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	M	-
syncCase	syncCase	short	CO	M	-
timeSlotForSch	timeSlotForSch	short	CO	M	-
schTimeSlot	schTimeSlot	short	CO	M	-
timeSlotHCRList	timeSlotHCRList	TDDNRMAttributeTypes:: TimeSlotListConfigStructType	O	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.16 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	CO	M	-
timeSlotLCRList	timeSlotLCRList	TDDNRMAttributeTypes:: TimeSlotListConfigStructType	O	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.17 IOC TmaFunction

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

NRM Attributes of IOC tmaFunction in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
tmaFunctionId	tmaFunctionId	string	M	M	-
tmaSubunitNumber	tmaSubunitNumber	unsigned short	M	M	M
tmaStateFlag	tmaStateFlag	unsigned short	M	M	O
tmaFunctionFlag	tmaFunctionFlag	unsigned short	M	M	M
tmaMinGain	tmaMinGain	unsigned short	M	M	-
tmaMaxGain	tmaMaxGain	unsigned short	M	M	-
tmaResolution	tmaResolution	unsigned short	M	M	-
tmaGainFigure	tmaGainFigure	unsigned short	M	M	O
tmaNumberOfSubunits	tmaNumber OfSubunits	unsigned short	M	M	-
tmaNumberOfNonLinearGainValues	tmaNumberOfNonLinearGainValues	unsigned short	M	M	-
tmaNonLinearGainValue	tmaNonLinearGainValue	sequence of unsigned short	M	M	M
tmaUtranCellList	tmaUtranCellList	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReferenceSet	M	M	M
tmaAdditionalDataFieldNumber	tmaAdditionalDataFieldNumber	unsigned short	CO	M	CO
tmaAntennaModelNumber	tmaAntennaModelNumber	string	CO	M	CO
tmaAntennaSerialNumber	tmaAntennaSerialNumber	string	CO	M	CO
tmaAntennaOperatingBands	tmaAntennaOperatingBands	unsigned short	CO	M	CO
tmaBeamwidthForEachOpBandInBandOrder	tmaBeamwidthForEachOpBandInBandOrder	sequence of unsigned short	CO	M	CO
tmaGainForEachOpBandInBandOrder	tmaGainForEachOpBandInBandOrder	sequence of unsigned short	CO	M	CO
tmaInstallationDate	tmaInstallationDate	string	CO	M	CO
tmaInstallersId	tmaInstallersId	string	CO	M	CO
tmaBaseStationId	tmaBaseStationId	string	CO	M	CO
tmaSectorId	tmaSectorId	string	CO	M	CO
tmaAntennaBearing	tmaAntennaBearing	unsigned short	CO	M	CO
tmaInstalledMechanicalTilt	tmaInstalledMechanicalTilt	short	CO	M	CO
tmaSubunitType	tmaSubunitType	unsigned short	CO	M	CO
tmaSubunitRxFrequencyBand	tmaSubunitRxFrequencyBand	sequence of unsigned short	CO	M	CO
tmaSubunitTxFrequencyBand	tmaSubunitTxFrequencyBand	sequence of unsigned short	CO	M	CO
tmaMaxSupportedGain	tmaMaxSupportedGain	unsigned short	CO	M	CO
tmaMinSupportedGain	tmaMinSupportedGain	unsigned short	CO	M	CO
tmaGainResolution	tmaGainResolution	unsigned short	CO	M	CO

5.2.18 IOC UtranRelation

Mapping from NRM IOC UtranRelation attributes 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	id	string	M	M	-
adjacentCell	adjacentCell	GenericNetworkResourcesIRPSystem::AttributeTypes::MOReference	M	M	M
isRemoveAllowed	isRemoveAllowed	boolean	CM	M	M
isHOAllowed	isHOAllowed	boolean	CM	M	M
NOTE: For all conditional qualifiers, see attribute constraints in TS 32.642 [4].					

5.2.19 IOC EP_IuCS

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

NRM Attributes of IOC EP_IuCS in TS 32.642 [4]	SS Attributes	SS Type	Support Qualifier	Read	Write
connMscNumber	connMscNumber	unsigned short	CO	M	-
NOTE: For all support qualifiers with the value 'CO' see attribute constraints in TS 32.642 [4].					

5.2.20 IOC EP_IuPS

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

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

6 Rules for management information model extensions

This clause discusses how the models and IDL definitions provided in the present document can be extended for a particular implementation while still remaining compliant with 3GPP SA5's specifications.

6.1 Allowed extensions

Vendor-specific IOCs may be supported. The vendor-specific IOCs may support new types of attributes. The 3GPP SA5-specified notifications may be issued referring to the vendor-specific IOCs and vendor-specific attributes. New IOCs shall be distinguishable from 3GPP SA5 IOCs by name. 3GPP SA5-specified and vendor-specific attributes may be used in vendor-specific IOCs. Vendor-specific attribute names shall be distinguishable from existing attribute names.

NRM IOCs may be subclassed. Subclassed IOCs shall maintain the specified behaviour of the 3GPP SA5's superior classes. They may add vendor-specific behaviour with vendor-specific attributes. When subclassing, naming attributes cannot be changed. The subclassed IOC shall support all attributes of its superior class. Vendor-specific attributes cannot be added to 3GPP SA5 NRM IOCs without subclassing.

When subclassing, the 3GPP SA5-specified containment rules and their specified cardinality shall still be followed. As an example, `ManagementNode` (or its subclasses) shall be contained under `SubNetwork` (or its subclasses).

Managed Object Instances may be instantiated as CORBA objects. This requires that the IOCs be represented in IDL. 3GPP SA5's NRM IOCs are not currently specified in IDL, but may be specified in IDL for instantiation or subclassing purposes. However, management information models should not require that IRPManagers access the instantiated managed objects other than through supported methods in the present document.

Extension rules related to notifications (Notification categories, Event Types, Extended Event Types etc.) are for further study.

6.2 Extensions not allowed

The IDL specifications in the present document cannot be edited or altered. Any additional IDL specifications shall be specified in separate IDL files.

IDL interfaces (note: not IOCs) specified in the present document may not be subclassed or extended. New interfaces may be defined with vendor-specific methods.

Annex A (normative): CORBA IDL, NRM definitions

A.1 IDL specification (file name "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";
      };
      /**
       *  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 retAntennaFunctionList= "retAntennaFunctionList";
         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 tmaFunctionList = "tmaFunctionList";
         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";
};

interface AntennaFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
   const string CLASS= "AntennaFunction";
   // Attribute Names
   //
   const string antennaId= "antennaFunctionId";
   const string retUtranCellList= "retUtranCellList";
   const string retTiltValue= "retTiltValue";
   const string bearing= "bearing";
   const string maxTiltValue= "maxTiltValue";
   const string minTiltValue= "minTiltValue";
   const string mechanicalOffset= "mechanicalOffset";
   const string retGroupName= "retGroupName";
   const string height= "height";
   const string baseElevation= "baseElevation";
   const string latitude= "latitude";
   const string longitude= "longitude";
   const string maxAzimuthValue= "maxAzimuthValue";
   const string minAzimuthValue= "minAzimuthValue";
   const string horizBeamwidth= "horizBeamwidth";
   const string vertBeamwidth= "vertBeamwidth";
   const string patternLabel= "patternLabel";
};

  /**
 *  Definitions for MO class TmaFunction
 */
   interface TmaFunction : GenericNetworkResourcesNRMDefs::ManagedFunction
{
   const string CLASS= "TmaFunction";
   // Attribute Names
   //
   const string tmaFunctionId= "tmaFunctionId";
   const string tmaSubunitNumber= "tmaSubunitNumber";
   const string tmaStateFlag= "tmaStateFlag";
   const string tmaFunctionFlag= "tmaFunctionFlag";
   const string tmaMinGain= "tmaMinGain";
   const string tmaMaxGain= "tmaMaxGain";
   const string tmaResolution= "tmaResolution";
   const string tmaGainFigure= "tmaGainFigure";
   const string tmaNumberOfSubunits= "tmaNumberOfSubunits";
   const string tmaNumberOfNonLinearGainValues= "tmaNumberOfNonLinearGainValues";
   const string tmaNonLinearGainValue= "tmaNonLinearGainValue";
   const string tmaUtranCellList= "tmaUtranCellList";
   const string tmaAdditionalDataFieldNumber= "tmaAdditionalDataFieldNumber";
   const string tmaAntennaModelNumber= "tmaAntennaModelNumber";
   const string tmaAntennaSerialNumber= "tmaAntennaSerialNumber";
   const string tmaAntennaOperatingBands= "tmaAntennaOperatingBands";
   const string tmaBeamwidthForEachOpBandInBandOrder= "tmaBeamwidthForEachOpBandInBandOrder";
   const string tmaGainForEachOpBandInBandOrder= "tmaGainForEachOpBandInBandOrder";
   const string tmaInstallationDate= "tmaInstallationDate";
   const string tmaInstallersId= "tmaInstallersId";
   const string tmaBaseStationId= "tmaBaseStationId";
   const string tmaSectorId= "tmaSectorId";
   const string tmaAntennaBearing= "tmaAntennaBearing";
   const string tmaInstalledMechanicalTilt= "tmaInstalledMechanicalTilt";
   const string tmaSubunitType= "tmaSubunitType";
   const string tmaSubunitRxFrequencyBand= "tmaSubunitRxFrequencyBand";
   const string tmaSubunitTxFrequencyBand= "tmaSubunitTxFrequencyBand";
   const string tmaMaxSupportedGain= "tmaMaxSupportedGain";
   const string tmaMinSupportedGain= "tmaMinSupportedGain";
   const string tmaGainResolution= "tmaGainResolution";
};



/**
```

```
        *  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";
          const string isRemoveAllowed = "isRemoveAllowed";
          const string isHOAllowed = "isHOAllowed";

};
/**
        *  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 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 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 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";
      };

};

/**
    *  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;
      };
};
   /**
    *  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 (informative): Change history

Change history								
Date	**TSG #**	**TSG Doc.**	**CR**	**R**	**Subject/Comment**	**Cat**	**Old**	**New**
Jun 2006	SP-32	SP-060259	0026	--	Add configuration parameters for radio channel power - Align with 32.642	B	6.6.0	7.0.0
Sep 2006	SP-33	SP-060623	0028	--	Correct the IOC AntennaFunction data types of latitude and longitude from "short" to "long" to avoid overflow	A	7.0.0	7.1.0
Mar 2007	--	--	--	--	Delete reference to the 32.644 CMIP SS. Reason: SA#35 endorsed the SA5 decision to not propagate the CMIP Solution Sets to Rel-7 (TS 32.3x4, TS 32.4x4, TS 32.6x4)	--	7.1.0	7.1.1
Jun 2007	SP-36	SP-070282	0029	--	Add control and configuration of Tower Mounted Amplifiers - Align with RAN3 25.466	B	7.1.1	7.2.0
Jun 2007	SP-36	SP-070276	0030	--	Add missing monitoring of cell neighbourship relations over Itf-p2p - Align with 32.642	F	7.1.1	7.2.0
Dec 2007	SP-38	SP-070730	0032	1	R7 CR 32.643-720 Correct CORBA Solution Set Tables	A	7.2.0	7.3.0
Dec 2007	SP-38	SP-070733	0033	1	Add write support for TMA Additional Data and correct CORBA IDL syntax errors.	F	7.2.0	7.3.0
Mar 2008	SP-39	SP-080058	0034	-	Add missing multi-frequency attributes for 1.28Mcps TDD - Align with 32.642	F	7.3.0	7.4.0
Apr 2008	--	--	--	--	Updated the Change history	--	7.4.0	7.4.1
Jun 2008	SP-40	SP-080328	0035	--	Correction of UTRAN Cell attributes - Align with 32.642	F	7.4.1	7.5.0
Dec 2008	SA_42	--	--	--	Upgrade to Release 8	--	7.5.0	8.0.0
Dec 2010	SA_50	SP-100831	0037	--	Correcting the inconsistent support qualifier of userLabel - Align with 32.642 IS	F	8.0.0	8.1.0
Dec 2011	SA_54	SP-110704	0039	--	Add missing IRAT ANR to UTRAN – Align with 32.642	F	8.1.0	8.2.0
Jun-2012	SA_56	SP-120355	0041	--	Add the missing IOC EP_IuCS and EP_IuPS in IDL specification- Align with 32.642	F	8.2.0	8.3.0
Sep-2012	SA_57	Sp-120556	0042	--	Remove the superfluous attributes in IDL specification - Align with 32.642	F	8.3.0	8.4.0

History

Document history		
V8.0.0	January 2009	Publication
V8.1.0	January 2011	Publication
V8.2.0	January 2012	Publication
V8.3.0	July 2012	Publication
V8.4.0	September 2012	Publication