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Technical Specification

**Digital cellular telecommunications system (Phase 2+);
Telecommunication management;
Configuration Management (CM);
GERAN network resources Integration Reference Point (IRP):
CMIP solution set
(3GPP TS 32.654 version 5.0.0 Release 5)**



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Foreword

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

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Introduction

The interface Itf-N, defined in 3GPP TS 32.102 [2], 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].

1 Scope

The present document specifies the Common Management Information Protocol (CMIP) Solution Set (SS) for the GERAN Network Resource Integration Reference Point (IRP): Network Resource Model defined in 3GPP TS 32.652 [4]. In detail:

- Clause 4 contains an introduction to some concepts that are the base for some specific aspects of the CMIP interfaces.
- Clause 5 contains the GDMO definitions for the Alarm Management over the CMIP interfaces
- Clause 6 contains the ASN.1 definitions supporting the GDMO definitions provided in clause 5.

This Solution Set specification is related to 3GPP TS 32.652 V5.0.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: "3G Telecom Management principles and high level requirements".
- [2] 3GPP TS 32.102: "3G Telecom Management architecture".
- [3] 3GPP TS 32.304: "Telecommunication Management; Notification Management; Notification Integration Reference Point (IRP); CMIP solution set".
- [4] 3GPP TS 32.652: "Telecommunication Management; Configuration Management: GERAN Network Resource Integration Reference Point: Network Resource Model".
- [5] ITU-T Recommendation X.710 (1991): "Common Management Information Service Definition for CCITT Applications".
- [6] ITU-T Recommendation X.721 (02/92): "Information Technology - Open Systems Interconnection – Structure of Management Information: Definition of Management Information".
- [7] ITU-T Recommendation X.730 (01/92): "Information Technology - Open Systems Interconnection – Systems Management: Object Management Function".
- [8] ITU-T Recommendation X.733 (02/92): "Information Technology - Open Systems Interconnection - Alarm Reporting Function".
- [9] ITU-T Recommendation M.3100 (07/95): "Maintenance Telecommunications Management Network – Generic Network Information Model".
- [10] GSM 12.20 (06/1996): "Digital cellular communication system (Phase 2); Base Station System (BSS) Management Information".
- [11] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 32.600 [11] and 3GPP TS 32.652 [4] apply.

3.2 Abbreviations

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

CMIP	Common Management Information Protocol
DN	Distinguished Name
GDMO	Guidelines for the Definition of Managed Objects
GERAN	GSM-EDGE Radio Access Network
IDL	Interface Definition Language
IEC	International Electro-technical Commission
ISO	International Standards Organization
ITU-T	International Telecommunication Union, Telecommunication Sector
MIB	Management Information Base
MIM	Management Information Model
MIT	Management Information Tree (or Naming Tree)
MOC	Managed Object Class
MOI	Managed Object Instance
NE	Network Element
NR	Network Resource
NRM	Network Resource Model
TMN	Telecommunications Management Network
UTRAN	UMTS Terrestrial Radio Access Network

4 Basic aspects

4.1 Architectural Aspects

A technology independent GERAN network resource model is defined in 3GPP TS 32.652 [4] for 3G networks. This document provides an implementation of this GERAN network resource model by using CMIP technology.

4.2 Mapping

The semantic of the GERAN Network Resource Model is defined in 3GPP TS 32.652 [4]. The specification of the information object classes defined there is independent of any implementation technology and protocol.

This subclause maps these technology and protocol independent definitions onto the equivalencies of the CMIP Solution Set of the GERAN Network Resource IRP.

4.2.1 Mapping of Information Object Classes

Table 2 maps the information object classes defined in the GERAN Network Resource Model onto the equivalent MOCs of the CMIP Solution Set.

Table 1: Mapping of MOCs

IS IOC	CMIP SS MOC
BssFunction	bssFunction
BtsSiteMgr	btsSiteMgr
GsmCell	gsmCell
GsmRelation	gsmRelation
ExternalGsmCell	externalGsmCell

4.2.2 Mapping of Information Object Class Attributes

This chapter depicts the mapping of the attributes defined in 3GPP TS 32.652 [4] on the corresponding attributes of the CMIP Solution Set.

4.2.2.1 Attribute Mapping of the IOC *BssFunction*

Table 2: Attribute mapping of the IOC *BssFunction*

IS Attribute	CMIP SS Attribute	Qualifier
bssFunctionId	bssFunctionId	M
userLabel	userLabel (ITU-T M.3100 [9])	M

4.2.2.2 Attribute Mapping of the IOC *BtsSiteMgr*

Table 3: Attribute mapping of the IOC *BtsSiteMgr*

IS Attribute	CMIP SS Attribute	Qualifier
btsSiteMgrId	btsSiteMgrId	M
userLabel	userLabel (ITU-T M.3100 [9])	M
latitude	latitude	O
longitude	longitude	O

4.2.2.3 Attribute Mapping of the IOC *GsmCell***Table 4: Attribute mapping of the IOC *GsmCell***

IS Attribute	CMIP SS Attribute	Qualifier
gsmCellId	gsmCellId	M
userLabel	userLabel (ITU-T M.3100 [9])	M
cellIdentity	cellGlobalIdentity (GSM 12.20 [10])	M
lac		
mcc		
mnc		
cellAllocation	cellAllocation (GSM 12.20 [10])	M
ncc	bsIdentityCode.ncc (GSM 12.20 [10])	M
bcc	bsIdentityCode.bcc (GSM 12.20 [10])	M
rac	rac (3GPP TS32.644 V5.0.x)	O
racc	racc	O
tsc	tsc (GSM 12.20 [10])	M
rxLevAccessMin	rxLevAccessMin (GSM 12.20 [10])	M
msTxPwrMaxCCH	msTxPwrMaxCCH (GSM 12.20 [10])	M
hoppingSequenceNumber	hoppingSequenceNumber (GSM 12.20 [10])	M
plmnPermitted	plmnPermitted (GSM 12.20 [10])	M

4.2.2.4 Attribute Mapping of the IOC *GsmRelation***Table 5: Attribute mapping of the IOC *GsmRelation***

IS Attribute	CMIP SS Attribute	Qualifier
gsmRelationId	gsmRelationId	M
relationType	relationType (3GPP TS32.644 V5.0.x)	M
adjacentCell	adjacentCell (3GPP TS32.644 V5.0.x)	M
bcchFrequency	bcchFrequency (GSM 12.20 [10])	O
ncc	bsIdentityCode.ncc (GSM 12.20 [10])	O
bcc	bsIdentityCode.bcc (GSM 12.20 [10])	O
lac	lac (3GPP TS32.644 V5.0.x)	O

4.2.2.5 Attribute Mapping of the IOC *ExternalGsmRelation***Table 6: Attribute mapping of the IOC *ExternalGsmRelation***

IS Attribute	CMIP SS Attribute	Qualifier
externalGsmCellId	externalGsmCellId	M
userLabel	userLabel (ITU-T M.3100 [9])	M
cellIdentity	cellGlobalIdentity (GSM 12.20 [10])	M
lac		
mcc		
mnc		
bcchFrequency	bcchFrequency (GSM 12.20 [10])	M
ncc	bsIdentityCode.ncc (GSM 12.20 [10])	M
bcc	bsIdentityCode.bcc (GSM 12.20 [10])	M
rac	rac (3GPP TS32.644 V5.0.x)	O
racc	racc	O

5 GDMO Definitions

5.1 Managed Object Classes

5.1.1 bssFunction

bssFunction **MANAGED OBJECT CLASS**
DERIVED FROM
"3GPP TS 32.624 Release 5": managedFunction;
CHARACTERIZED BY
bssFunctionBasicPackage;
REGISTERED AS {ts32-654ObjectClass 1};

5.1.2 btsSiteMgr

btsSiteMgr **MANAGED OBJECT CLASS**
DERIVED FROM
"3GPP TS 32.624 Release 5": managedFunction;
CHARACTERIZED BY
btsSiteMgrBasicPackage;
CONDITIONAL PACKAGES
"3GPP TS 32.674 Release 5": operationalStateAttributePackage **PRESENT IF**
"Instances of this MOC support operationalState attribute.",
btsSiteMgrGeoPositionPackage **PRESENT IF**
"the attributes defined in this package are supported by an instance of this class."; **PRESENT IF**
REGISTERED AS {ts32-654ObjectClass 2};

5.1.3 gsmCell

gsmCell **MANAGED OBJECT CLASS**
DERIVED FROM
"3GPP TS 32.624 Release 5": managedFunction;
CHARACTERIZED BY
gsmCellBasicPackage,
gsmCellMandatoryPackage;
CONDITIONAL PACKAGES
gsmCellOptionalPackage **PRESENT IF**
"the attributes defined in this package are supported by an instance of this class."; **PRESENT IF**
REGISTERED AS {ts32-654ObjectClass 3};

5.1.4 externalGsmCell

externalGsmCell **MANAGED OBJECT CLASS**
DERIVED FROM
"3GPP TS 32.624 Release 5": managedFunction;
CHARACTERIZED BY
externalGsmCellBasicPackage,
externalGsmCellMandatoryPackage;
CONDITIONAL PACKAGES
gsmCellOptionalPackage **PRESENT IF**
"the attributes defined in this package are supported by an instance of this class."; **PRESENT IF**
REGISTERED AS {ts32-654ObjectClass 4};

5.1.5 gsmRelation

gsmRelation **MANAGED OBJECT CLASS**
DERIVED FROM
"Recommendation X.721: 1992":top;
CHARACTERIZED BY
gsmRelationBasicPackage;

CONDITIONAL PACKAGESgsmRelationOptionalPackage **PRESENT IF**

"the attributes defined in this package are supported by an instance of this class.",

"Recommendation M.3100: 1995":createDeleteNotificationsPackage **PRESENT IF**

"the objectCreation and the objectDeletion defined in Recommendation X.721 are

supported by an instance of

this class.",

"Recommendation M.3100: 1995":attributeValueChangeNotificationPackage **PRESENT IF**

"the attributeValueChange notifications defined in Recommendation X.721 are

supported by an instance of

this class.";

REGISTERED AS {ts32-654ObjectClass 5};

5.2 Packages

5.2.1 bssFunctionBasicPackage

bssFunctionBasicPackage **PACKAGE****BEHAVIOUR**

bssFunctionBasicPackageBehaviour;

ATTRIBUTES

bssFunctionId GET;

REGISTERED AS {ts32-654Package 1};bssFunctionBasicPackageBehaviour **BEHAVIOUR****DEFINED AS**

"The Managed Object Class bssFunction represents BSS functionality. For more information about the BSS, see GSM 03.02";

5.2.2 btsSiteMgrBasicPackage

btsSiteMgrBasicPackage **PACKAGE****BEHAVIOUR**

btsSiteMgrBasicPackageBehaviour;

ATTRIBUTES

btsSiteMgrId GET;

REGISTERED AS {ts32-654Package 2};btsSiteMgrBasicPackageBehaviour **BEHAVIOUR****DEFINED AS**

"The 'BtsSiteMgr' managed object contains site specific information for a BTS site.";

5.2.3 btsSiteMgrGeoPositionPackage

btsSiteMgrGeoPositionPackage **PACKAGE****BEHAVIOUR**

btsSiteMgrGeoPositionPackageBehaviour;

ATTRIBUTES

longitude GET-REPLACE,

latitude GET-REPLACE;

REGISTERED AS {ts32-654Package 3};btsSiteMgrGeoPositionPackageBehaviour **BEHAVIOUR****DEFINED AS**

"This package contains the attributes describing the geographic position of a BTS site.";

5.2.4 gsmCellBasicPackage

gsmCellBasicPackage **PACKAGE****BEHAVIOUR**

gsmCellBasicPackageBehaviour;

ATTRIBUTES

GsmCellId GET;

REGISTERED AS {ts32-654Package 4};

gsmCellBasicPackageBehaviour **BEHAVIOUR**

DEFINED AS

"The managed object class gsmCell represents the GSM radio cell.";

5.2.5 gsmCellMandatoryPackage

gsmCellMandatoryPackage **PACKAGE**

BEHAVIOUR

gsmCellMandatoryPackageBehaviour;

ATTRIBUTES

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": cellAllocation

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": cellGlobalIdentity

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": tsc

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": rxLevAccessMin

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": msTxPwrMaxCCH

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": hoppingSequenceNumber

GET-REPLACE,

"ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": plmnPermitted

GET-REPLACE;

REGISTERED AS {ts32-654Package 5};

gsmCellMandatoryPackageBehaviour **BEHAVIOUR**

DEFINED AS

"This package contains the elementary mandatory attributes of a gsmCell.";

5.2.6 gsmCellOptionalPackage

gsmCellOptionalPackage **PACKAGE**

BEHAVIOUR

gsmCellOptionalPackageBehaviour;

ATTRIBUTES

"3GPP TS 32.644 Release 5": rac GET-REPLACE,

racc GET-REPLACE;

REGISTERED AS {ts32-654Package 6};

gsmCellOptionalPackageBehaviour **BEHAVIOUR**

DEFINED AS

"This package contains the optional GPRS attributes of a gsmCell.";

5.2.7 externalGsmCellBasicPackage

externalGsmCellBasicPackage **PACKAGE**

BEHAVIOUR

externalGsmCellBasicPackageBehaviour;

ATTRIBUTES

externalGsmCellId GET;

REGISTERED AS {ts32-654Package 7};

externalGsmCellBasicPackageBehaviour **BEHAVIOUR**

DEFINED AS

"This Managed Object Class represents a radio cell controlled by another IRPAgent. It a necessary attribute for inter-system handover. This MOC is a subreplication of a MOC in another NEM.";

5.2.8 externalGsmCellMandatoryPackage

externalGsmCellMandatoryPackage **PACKAGE**

BEHAVIOUR

externalGsmCellMandatoryPackageBehaviour;

ATTRIBUTES

REPLACE, "ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode GET-

REPLACE, "ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": cellGlobalIdentity GET-

REPLACE; "ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bcchFrequency GET-

REGISTERED AS {ts32-654Package 8};

externalGsmCellMandatoryPackageBehaviour **BEHAVIOUR**

DEFINED AS

"This package contains the elementary mandatory attributes of a externalGsmCell.";

5.2.9 gsmRelationBasicPackage

gsmRelationBasicPackage **PACKAGE**

BEHAVIOUR

gsmRelationBasicPackageBehaviour;

ATTRIBUTES

gsmRelationId GET,

"3GPP TS 32.644 Release 5": relationType GET-REPLACE,

"3GPP TS 32.644 Release 5": adjacentCell GET-REPLACE;

REGISTERED AS {ts32-654Package 9};

gsmRelationBasicPackageBehaviour **BEHAVIOUR**

DEFINED AS

"The 'GsmRelation' managed object contains radio network related parameters for the relation to the 'GsmCell' or 'ExternalGsmCell' managed object. Note: In handover relation terms, the cell containing the GSM Relation object is the source cell for the handover. The cell referred to in the GSM relation object is the target cell for the handover. This defines a one-way handover relation where the direction is from source cell to target cell.";

5.2.10 gsmRelationOptionalPackage

gsmRelationOptionalPackage **PACKAGE**

BEHAVIOUR

gsmRelationOptionalPackageBehaviour;

ATTRIBUTES

REPLACE, "ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode GET-

REPLACE, "3GPP TS 32.644 Release 5": lac GET-

REPLACE; "ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bcchFrequency GET-

REGISTERED AS {ts32-654Package 10};

gsmRelationOptionalPackageBehaviour **BEHAVIOUR**

DEFINED AS

"This package contains the optional attributes of a gsmRelation.";

5.3 Attributes

5.3.1 bssFunctionId

bssFunctionId **ATTRIBUTE**
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bssFunctionIdBehaviour;
REGISTERED AS {ts32-654Attribute 1};

bssFunctionIdBehaviour **BEHAVIOUR**
DEFINED AS
"This attribute identifies a bssFunction object.";

5.3.2 btsSiteMgrId

btsSiteMgrId **ATTRIBUTE**
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
btsSiteMgrIdBehaviour;
REGISTERED AS {ts32-654Attribute 2};

btsSiteMgrIdBehaviour **BEHAVIOUR**
DEFINED AS
"This attribute identifies a btsSiteMgr object.";

5.3.3 longitude

longitude **ATTRIBUTE**
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.Longitude;
MATCHES FOR EQUALITY;
BEHAVIOUR
longitudeBehaviour;
REGISTERED AS {ts32-654Attribute 3};

longitudeBehaviour **BEHAVIOUR**
DEFINED AS
"Used for geographical positioning of the sitemanager.";

5.3.4 latitude

latitude **ATTRIBUTE**
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.Latitude;
MATCHES FOR EQUALITY;
BEHAVIOUR
latitudeBehaviour;
REGISTERED AS {ts32-654Attribute 4};

latitudeBehaviour **BEHAVIOUR**
DEFINED AS
"Used for geographical positioning of the sitemanager.";

5.3.5 gsmCellId

gsmCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gsmCellIdBehaviour;
REGISTERED AS {ts32-654Attribute 5};

gsmCellIdBehaviour BEHAVIOUR
DEFINED AS
"Cell Identity (Ref GSM 03.03).";

5.3.6 racc

racc ATTRIBUTE
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.Racc;
MATCHES FOR EQUALITY;
BEHAVIOUR
raccBehaviour;
REGISTERED AS {ts32-654Attribute 7};

raccBehaviour BEHAVIOUR
DEFINED AS
"Routing Area Colour Code, RACC.";

5.3.7 gsmRelationId

gsmRelationId ATTRIBUTE
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gsmRelationIdBehaviour;
REGISTERED AS {ts32-654Attribute 8};

gsmRelationIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies a gsmRelation object.";

5.3.8 externalGsmCellId

externalGsmCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX
TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
externalGsmCellIdBehaviour;
REGISTERED AS {ts32-654Attribute 9};

externalGsmCellIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies a externalGsmCell object.";

5.4 Name Binding

5.4.1 bssFunction - managedElement

bssFunction-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS
 bssFunction;
NAMED BY SUPERIOR OBJECT CLASS
 "3GPP TS 32.624 Release 5": managedElement;
WITH ATTRIBUTE
 bssFunctionId;
BEHAVIOUR
 bssFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-654NameBinding 1};

bssFunction-managedElementBehaviour **BEHAVIOUR**
DEFINED AS

"The name binding represents a relationship in which a managedElement contains and controls a bssFunction. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.4.2 btsSiteMgr - bssFunction

btsSiteMgr-bssFunction **NAME BINDING**
SUBORDINATE OBJECT CLASS
 btsSiteMgr;
NAMED BY SUPERIOR OBJECT CLASS
 bssFunction;
WITH ATTRIBUTE
 btsSiteMgrId;
BEHAVIOUR
 btsSiteMgr-bssFunctionBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-654NameBinding 2};

btsSiteMgr-bssFunctionBehaviour **BEHAVIOUR**
DEFINED AS

"The name binding represents a relationship in which a bssFunction contains and controls a btsSiteMgr. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.4.3 gsmCell - btsSiteMgr

gsmCell-btsSiteMgr **NAME BINDING**
SUBORDINATE OBJECT CLASS
 gsmCell;
NAMED BY SUPERIOR OBJECT CLASS
 btsSiteMgr;
WITH ATTRIBUTE
 gsmCellId;
BEHAVIOUR
 gsmCell-btsSiteMgrBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-654NameBinding 3};

gsmCell-btsSiteMgrBehaviour **BEHAVIOUR**
DEFINED AS

"The name binding represents a relationship in which a btsSiteMgr contains and controls a gsmCell. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.4.4 gsmRelation - gsmCell

gsmRelation-gsmCell **NAME BINDING**
SUBORDINATE OBJECT CLASS
gsmRelation;
NAMED BY SUPERIOR OBJECT CLASS
gsmCell;
WITH ATTRIBUTE
gsmRelationId;
BEHAVIOUR
gsmRelation-gsmCellBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-654NameBinding 4};

gsmRelation-gsmCellBehaviour **BEHAVIOUR**
DEFINED AS

"The name binding represents a relationship in which a gsmCell contains and controls a gsmRelation. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.4.5 externalGsmCell - subNetwork

externalGsmCell-subNetwork **NAME BINDING**
SUBORDINATE OBJECT CLASS
externalGsmCell;
NAMED BY SUPERIOR OBJECT CLASS
"3GPP TS 32.624 Release 5": subNetwork;
WITH ATTRIBUTE
externalGsmCellId;
BEHAVIOUR
externalGsmCell-subNetworkBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-654NameBinding 5};

externalGsmCell-subNetworkBehaviour **BEHAVIOUR**
DEFINED AS

"The name binding represents a relationship in which a subNetwork contains and controls an externalGsmCell. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

6 ASN.1 Definitions

```

TS32-654TypeModule {ccitt (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Operation-Maintenance (3) ts-32-654 (654) informationModel (0) asn1Module (2) version1 (1)}

DEFINITIONS IMPLICIT TAGS ::=
BEGIN

--EXPORTS everything

IMPORTS

GeneralObjectId
  FROM TS32-624TypeModule {ccitt (0) identified-organization (4) etsi (0) mobileDomain (0)
  umts-Operation-Maintenance (3) ts32-624 (624) informationModel (0) asn1Module (2) version1 (1)}

Rac
  FROM TS32-644TypeModule {ccitt (0) identified-organization (4) etsi (0) mobileDomain (0)
  umts-Operation-Maintenance (3) ts-32-644 (644) informationModel (0) asn1Module (2)
  version1 (1)};

-- 3GPP TS 32.654 related Object Identifiers

baseNodeUMTS          OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0)
                               mobileDomain(0) umts-Operation-Maintenance(3)}

ts32-654              OBJECT IDENTIFIER ::= { baseNodeUMTS ts32-654                (654)}
ts32-654InfoModel    OBJECT IDENTIFIER ::= { ts32-654 informationModel            ( 0)}

ts32-654ObjectClass  OBJECT IDENTIFIER ::= { ts32-654InfoModel managedObjectClass ( 3)}
ts32-654Package      OBJECT IDENTIFIER ::= { ts32-654InfoModel package           ( 4)}
ts32-654Parameter    OBJECT IDENTIFIER ::= { ts32-654InfoModel parameter        ( 5)}
ts32-654NameBinding  OBJECT IDENTIFIER ::= { ts32-654InfoModel nameBinding       ( 6)}
ts32-654Attribute    OBJECT IDENTIFIER ::= { ts32-654InfoModel attribute         ( 7)}
ts32-654Action       OBJECT IDENTIFIER ::= { ts32-654InfoModel action            ( 9)}
ts32-654Notification OBJECT IDENTIFIER ::= { ts32-654InfoModel notification      (10)}

-- Start of 3GPP SA5 own definitions

Longitude ::= INTEGER

Latitude ::= INTEGER

Racc ::= INTEGER

END -- of TS32-654TypeModule

```

Annex A (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Sep 2001	S_13	SP-010478	001	--	Correction due to TS renumbering	4.0.0	4.1.0
Sep 2001	S_13	SP-010477	002	--	Addition of mcc and mnc in the object model of GERAN	4.0.0	4.1.0
Dec 2002	S_18	SP-020749	003	--	Alignment of the CMIP SS with the Rel-5 version of the IS in 32.652	4.1.0	5.0.0

History

Document history		
V5.0.0	December 2002	Publication