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Technical Specification

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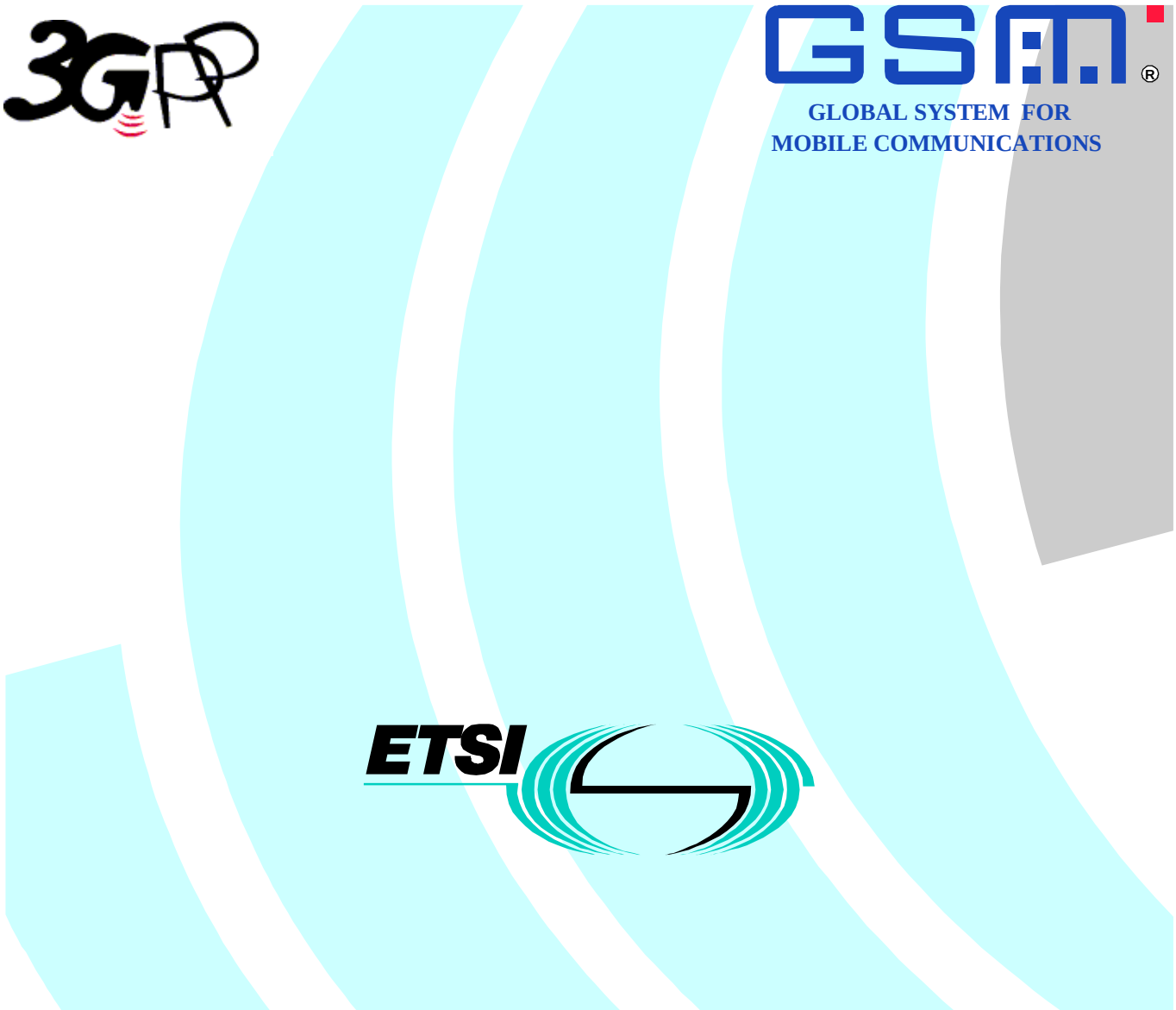
GERAN network resources IRP: CMIP solution set
(3GPP TS 32.654 version 4.0.0 Release 4)



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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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- x the first digit:
  - 1 presented to TSG for information;
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- z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

Due to the growing number of specifications to model new services and Resource Models for Configuration Management (CM), as well as the expected growth in size of each of them from 3GPP Release 4 onwards, a new structure of the specifications is already needed in Release 4. This structure is needed for several reasons, but mainly to enable more independent development and release for each part, as well as a simpler document identification and version handling. Another benefit would be that it becomes easier for bodies outside 3GPP, such as the ITU-T, to refer to telecom management specifications from 3GPP. The new structure of the specifications does not lose any information or functionality supported by the Release 1999. The restructuring also includes defining new IRPs for the Network Resource Model (NRM) parts of R99 Basic CM IRP (Generic, Core Network and UTRAN NRM). These IRPs are named “Network Resources IRP”.

Further, the Notification IRP (in Release 1999: 32.106-1 to -4) and the Name convention for Managed Objects (in Release 1999: 32.106-8) have been moved to a separate number series used for specifications common between several management areas (e.g. CM, FM, PM).

Finally, in addition to the restructuring mentioned above, the need to define some new functionality and IRPs for CM compared to Release 1999, has also been identified. Firstly, a new Bulk CM IRP, and secondly an a GERAN Network Resources IRP, have been created. Thirdly, the Generic, UTRAN and GERAN Network Resources IRPs have been extended with support for GSM-UMTS Inter-system handover (ISH), and the 32.600 (Concept and High-level Requirements) has been modified to cover the high-level Bulk CM and ISH requirements.

Table: Mapping between Release '99 and the new specification numbering scheme

R99 Old no.	Old (R99) specification title	Rel-4 New no.	New (Rel-4) specification title
32.106-1	3G Configuration Management: Concept and Requirements	32.600	**3G Configuration Management**: **Concept and High-level Requirements**
32.106-1	<Notification IRP requirements from 32.106-1 and 32.106-2>	32.301	**Notification IRP**: Requirements
32.106-2	Notification IRP: IS	32.302	Notification IRP: Information Service
32.106-3	Notification IRP: CORBA SS	32.303	Notification IRP: CORBA SS
32.106-4	Notification IRP: CMIP SS	32.304	Notification IRP: CMIP SS
32.106-8	Name convention for Managed Objects	32.300	**Name Convention for Managed Objects**
32.106-1	<Basic CM IRP IS requirements from 32.106-1 and 32.106-5>	32.601	**Basic CM IRP**: Requirements
32.106-5	Basic CM IRP IM (Intro & IS part)	32.602	Basic CM IRP: Information Service
32.106-6	Basic CM IRP CORBA SS (IS related part)	32.603	Basic CM IRP: CORBA SS
32.106-7	Basic CM IRP CMIP SS (IS related part)	32.604	Basic CM IRP: CMIP SS
32.106-8	Name convention for Managed Objects	32.300	**Name Convention for Managed Objects**
-	-	32.611	**Bulk CM IRP**: Requirements
-	-	32.612	Bulk CM IRP: Information Service
-	-	32.613	Bulk CM IRP: CORBA SS
-	-	32.614	Bulk CM IRP: CMIP SS
		32.615	Bulk CM IRP: XML file format definition
32.106-1	<Basic CM IRP Generic NRM requirements from 32.106-1 and 32.106-5>	32.621	**Generic Network Resources IRP**: Requirements
32.106-5	Basic CM IRP IM (Generic NRM part)	32.622	Generic Network Resources IRP: NRM
32.106-6	Basic CM IRP CORBA SS (Generic NRM related part)	32.623	Generic Network Resources IRP: CORBA SS
32.106-7	Basic CM IRP CMIP SS (Generic NRM related part)	32.624	Generic Network Resources IRP: CMIP SS
32.106-1	<Basic CM IRP CN NRM requirements from 32.106-1 and 32.106-5>	32.631	**Core Network Resources IRP**: Requirements
32.106-5	Basic CM IRP IM (CN NRM part)	32.632	Core Network Resources IRP: NRM
32.106-6	Basic CM IRP CORBA SS (CN NRM related part)	32.633	Core Network Resources IRP: CORBA SS
32.106-7	Basic CM IRP CMIP SS (CN NRM related part)	32.634	Core Network Resources IRP: CMIP SS
32.106-1	<Basic CM IRP UTRAN NRM requirements from 32.106-1 and 32.106-5>	32.641	**UTRAN Network Resources IRP**: Requirements
32.106-5	Basic CM IRP IM (UTRAN NRM part)	32.642	UTRAN Network Resources IRP: NRM
32.106-6	Basic CM IRP CORBA SS (UTRAN NRM related part)	32.643	UTRAN Network Resources IRP: CORBA SS
32.106-7	Basic CM IRP CMIP SS (UTRAN NRM related part)	32.644	UTRAN Network Resources IRP: CMIP SS
		32.651	**GERAN Network Resources IRP**: Requirements
		32.652	GERAN Network Resources IRP: NRM
		32.653	GERAN Network Resources IRP: CORBA SS
		32.654	GERAN Network Resources IRP: CMIP SS

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. 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.

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; Part 4: Notification Integration Reference Point; 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".

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 and 3GPP TS 32.652 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 Explanation

A technology independent GERAN network resource model is defined in 3GPP TS 32.652 for 3G networks. This document provides an implementation of this UTRAN 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. 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 MOCs

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

Table 1: Mapping of MOCs

Information Objects of the Generic UTAN IRP NRM	MOCs of this CMIP SS
BssFunction	bssFunction
BtsSiteMgr	btsSiteMgr
GsmCell	gsmCell
GsmRelation	gsmRelation
ExternalGsmCell	externalGsmCell

4.2.2 Mapping of Attributes

Table 2: Mapping of Attributes

Attribute defined in 3GPP TS 32.652	Attribute defined in this CMIP SS
bssFunctionId	bssFunctionId
btsSiteMgrId	btsSiteMgrId
latitude	latitude
longitude	longitude
gsmCellId	gsmCellId
cellIdentity	cellIdentity
cellAllocation	cellAllocation (GSM 12.20 : 6.1996)
ncc	bsIdentityCode.ncc (GSM 12.20 : 6.1996)
bcc	bsIdentityCode.bcc (GSM 12.20 : 6.1996)
lac	lac (3GPP TS32.622-4: 5.2001)
rac	rac (3GPP TS32.622-4: 5.2001)
racc	racc
tsc	tsc (GSM 12.20 : 6.1996)
rxLevAccessMin	rxLevAccessMin (GSM 12.20 : 6.1996)
msTxPwrMaxCCH	msTxPwrMaxCCH (GSM 12.20 : 6.1996)
hoppingSequenceNumber	hoppingSequenceNumber (GSM 12.20 : 6.1996)
plmnPermitted	plmnPermitted (GSM 12.20 : 6.1996)
gsmRelationId	gsmRelationId
relationType	relationType (3GPP TS32.622-4: 5.2001)
adjacentCell	adjacentCell (3GPP TS32.622-4: 5.2001)
bcchFrequency	bcchFrequency (GSM 12.20 : 6.1996)
externaGsmlCellId	externalGsmCellId

5 GDMO Definitions

5.1 Managed Object Classes

5.1.1 bssFunction

bssFunction MANAGED OBJECT CLASS
  DERIVED FROM "3GPP TS 32.620-4: 6.2001": managedFunction;
  CHARACTERIZED BY
    bssFunctionBasicPackage;
REGISTERED AS {ts32-623ObjectClass 1};

5.1.2 btsSiteMgr

btsSiteMgr MANAGED OBJECT CLASS
  DERIVED FROM "3GPP TS 32.620-4: 6.2001": managedFunction;
  CHARACTERIZED BY
    btsSiteMgrBasicPackage;
  CONDITIONAL PACKAGES
    btsSiteMgrGeoPositionPackage PRESENT IF
      "the attributes defined in this package are supported by an instance of this class.";
REGISTERED AS {ts32-623ObjectClass 2};

5.1.3 gsmCell

gsmCell MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.620-4: 6.2001": managedFunction;
CHARACTERIZED BY
gsmCellBasicPackage,
gsmCellMandatoryPackage,
CONDITIONAL PACKAGES
gsmCellOptionalPackage PRESENT IF
"the attributes defined in this package are supported by an instance of this class.";
REGISTERED AS {ts32-623ObjectClass 3};

5.1.4 externalGsmCell

externalUtranCell MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.620-4: 6.2001": managedFunction;
CHARACTERIZED BY
externalGsmCellBasicPackage,
externalGsmCellMandatoryPackage,
CONDITIONAL PACKAGES
gsmCellOptionalPackage PRESENT IF
"the attributes defined in this package are supported by an instance of this class.";
REGISTERED AS {ts32-623ObjectClass 4};

5.1.5 gsmRelation

gsmRelation MANAGED OBJECT CLASS
DERIVED FROM "Recommendation X.721: 1992":top;
CHARACTERIZED BY
gsmRelationBasicPackage;
CONDITIONAL PACKAGES
gsmRelationOptionalPackage 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 {ts32-623ObjectClass 5};

5.2 Packages

5.2.1 bssFunctionBasicPackage

bssFunctionBasicPackage PACKAGE

BEHAVIOUR
bssFunctionBasicPackageBehaviour;
ATTRIBUTES
bssFunctionId GET;

REGISTERED AS {ts32-623Package 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 {ts32-623Package 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 {ts32-623Package 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 {ts32-623Package 4};

gsmCellBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"The managed object class gsmCell represents the GSM radio cell.";

5.2.5 gsmCellMandatoryPackage

gsmCellMandatoryPackage PACKAGE
BEHAVIOUR
gsmCellMandatoryPackageBehaviour;
ATTRIBUTES
cellIdentity GET-REPLACE,
“GSM 12.20: 6. 1996”: cellAllocation GET-REPLACE,
“GSM 12.20: 6. 1996”: bsIdentityCode GET-REPLACE,
“3GPP TS 32.622-4: 6.2001”: lac GET-REPLACE,
“GSM 12.20: 6. 1996”: tsc GET-REPLACE,
“GSM 12.20: 6. 1996”: rxLevAccessMin GET-REPLACE,
“GSM 12.20: 6. 1996”: msTxPwrMaxCCH GET-REPLACE,
“GSM 12.20: 6. 1996”: hoppingSequenceNumber GET-REPLACE,
“GSM 12.20: 6. 1996”: plmnPermitted GET-REPLACE;
REGISTERED AS {ts32-623Package 5};

gsmCellManadatoryPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains the elementary mandatory attributes of a gsmCell.";

5.2.6 gsmCellOptionalPackage

gsmCellOptionalPackage PACKAGE
BEHAVIOUR
gsmCellOptionalPackageBehaviour;
ATTRIBUTES
“3GPP TS 32.622-4: 6.2001”: rac GET-REPLACE,
racc GET-REPLACE;
REGISTERED AS {ts32-623Package 6};

gsmCellOptionalPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains the optional GPRS attributes of a gsmCell.";

5.2.7 externalGsmCellBasicPackage

externalGsmCellBasicPackage PACKAGE
BEHAVIOUR
externalUtranCellBasicPackageBehaviour;
ATTRIBUTES
externalGsmCellId GET;
REGISTERED AS {ts32-623Package 7};

externalGsmCellBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"This Managed Object Class represents a radio cell controlled by another IRPAgent. It a necesssary 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
cellIdentity GET-REPLACE,
“GSM 12.20: 6. 1996”: bsIdentityCode GET-REPLACE,
“3GPP TS 32.622-4: 6.2001”: lac GET-REPLACE,
“GSM 12.20: 6. 1996”: bcchFrequency GET-REPLACE;
REGISTERED AS {ts32-623Package 8};

externalGsmCellManadatoryPackageBehaviour 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 32.622: 6.2001”: relationType GET-REPLACE,
“3GPP TS 32.622: 6.2001”: adjacentCell GET-REPLACE;
REGISTERED AS {ts32-623Package 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
"GSM 12.20: 6. 1996": bsIdentityCode GET-REPLACE,
"3GPP TS 32.622-4: 6.2001": lac GET-REPLACE,
"GSM 12.20: 6. 1996": bcchFrequency GET-REPLACE;
REGISTERED AS {ts32-623Package 6};

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 TS32-106-7TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bssFunctionIdBehaviour;
REGISTERED AS {ts32-623Attribute 1};

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

5.3.2 btsSiteMgrId

btsSiteMgrId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
btsSiteMgrIdBehaviour;
REGISTERED AS {ts32-623Attribute 2};

btsSiteMgrIdBehaviour BEHAVIOUR
DEFINED AS

```
   "This attribute identifies a btsSiteMgr object."
```

5.3.3 longitude

longitude ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-623TypeModule.Longitude;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    longitudeBehaviour;
REGISTERED AS {ts32-623Attribute 3};

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

5.3.4 latitude

latitude ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-623TypeModule.Latitude;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    latitudeBehaviour;
REGISTERED AS {ts32-623Attribute 4};

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

5.3.5 gsmCellId

gsmCellId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    gsmCellIdBehaviour;
REGISTERED AS {ts32-623Attribute 5};

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

5.3.6 cellIdentity

cellIdentity ATTRIBUTE
  WITH ATTRIBUTE SYNTAX GSM1220TypeModule.CellIdentity;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    cellIdentityBehaviour;

REGISTERED AS {ts32-623Attribute 6};

cellIdentityBehaviour BEHAVIOUR
DEFINED AS
" Location Area Code, LAC (Ref. 3 GPP TS 23.003)”

5.3.7 racc

racc ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-622TypeModule.Racc;
MATCHES FOR EQUALITY;
BEHAVIOUR
raccBehaviour;
REGISTERED AS {ts32-623Attribute 7};

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

5.3.8 gsmRelationId

gsmRelationId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gsmRelationIdBehaviour;
REGISTERED AS {ts32-623Attribute 8};

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

5.3.9 externalGsmCellId

externalGsmCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
externalGsmCellIdBehaviour;
REGISTERED AS {ts32-623Attribute 9};

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

5.3 Name Binding

5.3.1 bssFunction - managedElement

bssFunction-managedElement NAME BINDING
  SUBORDINATE OBJECT CLASS bssFunction;
  NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.620-4: 6.2001”: managedElement;
  WITH ATTRIBUTE bssFunctionId;
  BEHAVIOUR
    bssFunction-managedElementBehaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 1};

rncFunction-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.";

5.3.2 btsSiteMgr - bssFunction

btsSiteMgr-bssFunction NAME BINDING
  SUBORDINATE OBJECT CLASS btsSiteMgr;
  NAMED BY SUPERIOR OBJECT CLASS bssFunction;
  WITH ATTRIBUTE btsSiteMgrId;
  BEHAVIOUR
    btsSiteMgr-bssFunctionBahaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 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.";

5.3.3 gsmCell - btsSiteMgr

gsmCell-btsSiteMgr NAME BINDING
  SUBORDINATE OBJECT CLASS gsmCell;
  NAMED BY SUPERIOR OBJECT CLASS btsSiteMgr;
  WITH ATTRIBUTE gsmCellId;
  BEHAVIOUR
    gsmCell-btsSiteMgrBahaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {ts32-623NameBinding 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.";

5.3.4 gsmRelation - gsmCell

gsmRelation-gsmCell NAME BINDING
SUBORDINATE OBJECT CLASS gsmRelation;
NAMED BY SUPERIOR OBJECT CLASS gsmCell;
WITH ATTRIBUTE gsmRelationId;
BEHAVIOUR
gsmRelation-gsmCellBahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 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.";

5.3.5 externalGsmCell - subNetwork

externalGsmCell-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS externalGsmCell;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.620-4: 05.2001”: subNetwork;
WITH ATTRIBUTE externalGsmCellId;
BEHAVIOUR
externalGsmCell-subNetworkBahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 5};

externalUtranCell-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.";

5.3.6 vsDataContainer - bssFunction

vsDataContainer-bssFunction NAME BINDING
SUBORDINATE OBJECT CLASS “3GPP TS 32.620-4: 06.2001”: vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS bssFunction;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-bssFunctionBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 6};

vsDataContainer-bssFunctionBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a bssFunction contains and
controls a vsDataContainer. When automatic instance naming is used, the choice
of name bindings is left as a local matter. This containment relation shall be used only with BulkCmIRP CMIP SS defined in 3GPP TS 32.602-4.";

5.3.7 vsDataContainer - btsSiteMgr

vsDataContainer-btsSiteMgr NAME BINDING
SUBORDINATE OBJECT CLASS “3GPP TS 32.620-4: 06.2001”: vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS btsSiteMgr;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-btsSiteMgrBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 7};

vsDataContainer-btsSiteMgrBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a btsSiteMgr contains and
controls a vsDataContainer. When automatic instance naming is used, the choice
of name bindings is left as a local matter. This containment relation shall be used only with BulkCmIRP CMIP SS defined in 3GPP TS 32.602-4.";

5.3.8 vsDataContainer - gsmCell

vsDataContainer-gsmCell NAME BINDING
SUBORDINATE OBJECT CLASS “3GPP TS 32.620-4: 06.2001”: vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS gsmCell;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-gsmCellBehaviour;

CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623NameBinding 8};

vsDataContainer-gsmCellBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a gsmCell contains and
controls a vsDataContainer. When automatic instance naming is used, the choice
of name bindings is left as a local matter. This containment relation shall be used only with BulkCmIRP CMIP SS defined in 3GPP TS 32.602-4.";

5.3.9 vsDataContainer - gsmRelation

vsDataContainer-gsmRelation NAME BINDING
SUBORDINATE OBJECT CLASS “3GPP TS 32.620-4: 06.2001”: vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS gsmRelation;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-gsmCellRelationBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-622NameBinding 9};

vsDataContainer-gsmRelationBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a gsmRelation contains and
controls a vsDataContainer. When automatic instance naming is used, the choice
of name bindings is left as a local matter. This containment relation shall be used only with BulkCmIRP CMIP SS defined in 3GPP TS 32.602-4.";

6 ASN.1 Definitions

```
TS32-623TypeModule {ccitt (0) identified-organization (4) etsi (0)
        mobileDomain (0) umts-Operation-Maintenance (3) ts-32-623 (623)
        informationModel (0) asn1Module (2) version1 (1)}



DEFINITIONS IMPLICIT TAGS ::=
BEGIN
--EXPORTS everything

--IMPORTS



-- 3GPP TS 32.623-4 related Object Identifiers

baseNodeUMTS  OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
                        umts-Operation-Maintenance(3)}
ts32-623      OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-623(623)}
ts32-623InfoModel     OBJECT IDENTIFIER ::= { ts32-623 informationModel(0)}

ts32-623ObjectClass   OBJECT IDENTIFIER ::= { ts32-623InfoModel managedObjectClass(3)}
ts32-623Package       OBJECT IDENTIFIER ::= { ts32-623InfoModel package(4)}
ts32-623Parameter     OBJECT IDENTIFIER ::= { ts32-623InfoModel parameter(5)}
ts32-623NameBinding   OBJECT IDENTIFIER ::= { ts32-623InfoModel nameBinding(6)}
ts32-623Attribute     OBJECT IDENTIFIER ::= { ts32-623InfoModel attribute(7)}
ts32-623Action      OBJECT IDENTIFIER ::= { ts32-623InfoModel action(9)}
ts32-623Notification  OBJECT IDENTIFIER ::= { ts32-623InfoModel notification(10)}


-- Start of 3GPP SA5 own definitions


Logitude ::= GraphicString
Latitude ::= GraphicString
Racc ::= Integer

END  -- of TS32-622TypeModule
```

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

History

Document history		
V4.0.0	June 2001	Publication