

Technical Specification Group Services and System Aspects  
Meeting #10, Bangkok, Thailand, 11-14 December 2000

**TSGS#10(00)0515**

**Source:** SA WG5

**Title:** 32.106-7 (v1.0.0) Configuration Management; Part 7: Basic  
Configuration Management IRP CMIP Solution Set Version 1:1

**Document for:** Approval

**Agenda Item:** 7.5.3

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# 3GPP TS 32.106-7 V1.0.0 (2000-12)

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*Technical Specification*

**3rd Generation Partnership Project;  
Technical Specification Group Services and System Aspects;  
Part 7: Basic Configuration Management IRP:  
CMIP Solution Set 1:1  
(Release 1999)**

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Keywords

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Configuration Management

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## Foreword

This Technical Specification (TS) has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
  - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

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## Introduction

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. The CM actions are initiated either as a single action on a network element of the 3G network or as part of a complex procedure involving actions on many network elements.

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 [1] and [2]. For CM, a number of IRPs (and the Name Convention) are defined, used by this as well as other technical specifications for telecom management produced by 3GPP. All these documents are included in Parts 2 through 8 of the present document as follows:

Notification IRP Information Service:	32.106 Part 2
Notification IRP CORBA Solution Set:	32.106 Part 3
Notification IRP CMIP Solution Set:	32.106 Part 4
Basic Configuration Management IRP Information Model (including NRM):	32.106 Part 5
Basic Configuration Management IRP CORBA Solution Set:	32.106 Part 6
<b>Basic Configuration Management IRP CMIP Solution Set:</b>	<b>32.106 Part 7</b>
Name Convention for Managed Objects:	32.106 Part 8

This document constitutes 32.106 Part 7 - Basic Configuration Management IRP CMIP Solution Set.

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# 1 Scope and Version

The present document defines a CMIP solution set for the Basic CM IRP introduced in 3GPP TS 32.106-5 [15]. The version of this CMIP solution set is 1:1, where the first “1” means that it corresponds to the Information Model version 1, and the second “1” means that it is the first CMIP solution set corresponding to Information Model version 1.

Clause 4 maps the protocol- and technology-independent operations, parameters, notifications and the network resource model specified in the Basic CM IRP Information Model (Chapter 6 of 3GPP 3GPP TS 32.106-5 [15]) onto the corresponding CMIP/CMISE equivalences. The important technical aspects specific to this CMIP solution set are also described there. The GDMO definitions are introduced in Clause 5. Clause 6 contains the ASN.1 definitions related to the GDMO definitions provided in clause 5.

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# 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.

- [1] 3GPP 32.101: "3G Telecom Management principles and high level requirements"
- [2] 3GPP 32.102: "3G Telecom Management architecture"
- [3] 3GPP 32.106 Part 2: "Notification IRP: Information Service"
- [4] ITU-T Recommendation M.3100 (07/95) - Generic Network Information Model
- [5] ITU-T Recommendation M.3100 Corrigendum 1 (07/98)
- [6] ITU-T Recommendation M.3100 Amendment 1 (03/99)
- [7] ITU-T Recommendation X.710 (1991) - Common Management Information Service Definition for CCITT Applications
- [8] ITU-T Recommendation X.721 (02/92) - Information Technology - Open Systems Interconnection – Structure of Management Information: Definition of Management Information
- [9] ITU-T Recommendation X.730 (01/92) - Information Technology - Open Systems Interconnection – Systems Management: Object Management Function
- [10] ITU-T Recommendation X.731 (02/92) - Information Technology - Open Systems Interconnection - Systems Management: State Management Function
- [11] ITU-T Recommendation X.732 (01/92) - Information technology - Open Systems Interconnection - Systems Management: Attributes for Representing Relationships
- [12] ETS 300 622 (GSM 12.20) - Digital cellular telecommunications system (Phase 2); Base Station System (BSS) Management Information, June 1996
- [13] 3GPP 32.106 Part 8: “Name Convention for Managed Objects“
- [14] 3GPP 32.106 Part 1: “3G Configuration Management”
- [15] 3GPP 32.106 Part 5: “3G Configuration Management IRP: Information Model Version 1”

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## 3 Definitions and abbreviations

### 3.1 Definitions

The terms and definitions introduced in 3GPP TS 32.106-1, 3GPP TS 32.106-2 and 3GPP TS 32.106-5 apply in this document.

### 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
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

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## 4 Basic Aspects

### 4.1 CMIP specific aspects

This clause describes some technical details specific to CMIP technology which are not easy to be handled in the related GDMO definitions.

#### 4.1.1 About Associations

In the GDMO definitions, except the containment relations, all associations among different object classes and object instances are modelled with dedicated pointers of the concerned objects, i.e. various relation role attributes. These pointers are normal object attributes and don't require any special treatment. The service operation *getMoAttributes* defined in 3GPP TS 32.106-5 and mapped on M-GET in this CMIP solution set is applied for managers to retrieve the values of these association pointers and the notification *attributeValueChange* is applied for agents to report any change of the values of these association pointers.

#### 4.1.2 About getContainment

In the GDMO definition the containment relations of the managed object classes and those of the managed object instances are described by the name bindings. The service operation *getContainment* is defined in 3GPP TS 32.106-5 to enable managers to retrieve the management information about the containment tree of the local MIB of an agent. This service operation is mapped to CMISE *M-GET* in this CMIP solution set. The information about the containment relation of a local MIB is consists of all MOIs abstracted from the output parameter *AttributeList* of a *M-GET* operation.

### 4.1.3 About getMoAttributes

The service operation *getMoAttributes* defined in the Basic CM IRP IM (3GPP TS 32.106-5) provides the basic functionality required to retrieve managed objects and their attributes, which is a subset of the functionality provided by the corresponding CMISE service operation *M-GET*. *getMoAttributes* is mapped to *M-GET* in this standard. This doesn't mean any limitation for using *M-GET*. Users of this standard are encouraged to use the whole functionality provided by *M-Get*, especially the input parameter "Attribute Identifier List" (see ITU-T X.710).

### 4.1.4 Allowed Alarms of MOCs

Neither the Basic CM IRP IM (3GPP TS 32.106-5) nor Alarm IRP IS (3GPP TS 32.111-2) specifies the allowed alarms of each MOC in the sense of EventType or/and ExtendedEventType. The following table defines the allowed alarms of each MOCs for this CMIP solution set. Further study of this table and its relationship to 3GPP TS 32.106-5 is planned for R4/5.

**Table 1: Allowed alarms of MOCs**

MOCs	Legal Alarms
G3SubNetwork	EnvironmentalAlarm
G3ManagedElement	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
ManagementNode	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
ManagedFunction	communicationsAlarm processingErrorAlarm QualityofServiceAlarm
IRPAgent	communicationsAlarm processingErrorAlarm
AlarmIRP	alarmListRebuiltAlarm

The MOCs, which doesn't appear in this table, may not issue any alarm except the alarms that are defined allowed for its parent MOCs.



## 4.2 Mapping

The semantics of the Basic CM IRP IM is defined in 3GPP TS 32.106-5. The definitions of the management services and management information defined there are independent of any implementation technology and protocol. This section maps these technology and protocol independent definitions onto the equivalencies of the CMIP solution set of the Basic CM IRP.

### 4.2.1 Mapping of Operations

The table below maps the operations defined in the Basic CM IRP Information Service onto the equivalent Actions/Services of the CMIP solution set. The CMIP Actions/Services are qualified as Mandatory or Optional.

**Table 2: Mapping of operations**

Operations of Information Services of the Basic CM IRP defined in 3GPP TS 32.106-5	Equivalent operation of the CMIP solution set of the Basic CM IRP	Qualifier
getMoAttributes	M-GET (CMISE Service)	M
getContainment	M-GET (CMISE Service)	O
getBasicCmIRPVersion	M-ACTION getBasicCmIRPVersion (Action of MOC bcmControl)	M

### 4.2.2 Mapping of operation parameters

The tables in the following subsections shows the parameters of each operation defined in the Information Service described in 3GPP TS 32.106-5 and their equivalencies in the CMIP solution set.

## 4.2.2.1 Mapping of Parameters of 'getMoAttributes'

Table 3: Mapping of parameters of 'getMoAttributes'

Parameters of the operation 'getMoAttributes' defined in 3GPP TS 32.106-5	CMISE M-GET parameters	Qualifier
baseObjectInstance	Base object instance	M
scope	Scope	M
filter	Filter	M
no equivalence	Invoker identifier This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getMoAttributes'.	O
no equivalence	Basic object class This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getMoAttributes'.	M
no equivalence	Access Control This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getMoAttributes'.	O
no equivalence	Synchronisation This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getMoAttributes'.	O
attributeListIn	Attribute identifier list	M
managedObjectClass	Managed object class	M
managedObjectInstance	Managed object instance	M
attributeListOut	Attribute list	M
status	Errors	M
no equivalence	Current time This is a CMISE specific parameter. There is no equivalence parameter defined in the Information Service for 'getMoAttributes'.	O

## 4.2.2.2 Mapping of Parameters of 'getContainment'

Table 4: Mapping of parameters of 'getContainment'

Parameters of the operation 'getContainment' defined in 3GPP TS 32.106-5	CMISE M-GET parameter	Qualifier
baseObjectInstance	Base object instance	M
scope	Scope	O
no equivalence	filter This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getContainment'. The value of this parameter shall be 'empty'.	O
no equivalence	Invoker identifier This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getContainment'.	O
no equivalence	Basic object class This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getContainment'.	M
no equivalence	Access Control This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getContainment'.	O
no equivalence	Synchronisation This is a CMISE specific parameter. There is no equivalent parameter defined in the Information Service for 'getContainment'.	O
no equivalence	Attribute identifier list This is a CMISE specific parameter. There is no equivalence parameter defined in the Information Service for 'getContainment'. It is recommended to use 'objectClass' or/and 'nameBinding' defined in X.721 for the MOC top as the value of this input parameter.	O
containment	Managed object class	M
	Managed object instance	M
	Attribute list	M
status	Errors	M
no equivalence	Current time This is a CMISE specific parameter. There is no equivalence parameter defined in the Information Service for 'getMoAttributes'.	O

### 4.2.2.3 Mapping of parameters of 'getBasicCmlRPVersion'

**Table 5: Mapping of parameters of "getBasicCmlRPVersion"**

Operation parameters of the Basic CM IRP Information Services.	CMISE M-ACTION Parameters	Qualifier
no equivalence	Invoke identifier	M
no equivalence	Linked identifier	O
no equivalence	Mode	M
no equivalence	Base object class (input)	M
no equivalence	Base object instance (input)	M
no equivalence	Scope	O
no equivalence	Filter	O
no equivalence	Managed object class (output)	O
no equivalence	Managed object instance (output)	O
no equivalence	Access control	O
no equivalence	Synchronization	O
no equivalence	Action type	M
no equivalence	Action information	O
no equivalence	Current time	O
versionNumberList, status	Action reply	O
no equivalence	Errors	O

### 4.2.3 Mapping of notifications

The table below maps the notifications defined in the Basic CM IRP Information Service onto the equivalent notification of the CMIP solution set. The CMIP notifications are qualified as Mandatory or Optional.

**Table 6: Mapping of notifications**

notifications of Basic CM IRP Information Service	Notifications of the Basic CM IRP CMIP solution set	Qualifier
notifyObjectCreation	objectCreation ITU-T X.721 {smi2Notification 6}	O
notifyObjectDeletion	objectDeletion ITU-T X.721 {smi2Notification 7}	O
notifyAttributeValueChange	attributeValueChange ITU-T X.721 {smi2Notification 1}	O

### 4.2.4 Mapping of notification parameters

The tables in the following subsections shows the parameters of each notification defined in the Information Service described in 3GPP TS 32.106-5 and their equivalence in the CMIP solution set.

The mapping of common parameters of all kinds of notifications defined in 32.106-2 is described in 32.106-4 and will not be repeated in this document. These common parameters are *managedObjectClass*, *managedObjectInstance*, *NotificationId*, *eventType*, *extendedEventType*, *eventTime* and *systemDN*.

## 4.2.4.1 Mapping of parameters of the notification 'notifyObjectCreation'

**Table 7: Mapping of parameters of the notification 'notifyObjectCreation'**

parameters of the Basic CM IRP IS notification 'notifyObjectCreation'	Parameters of the CMIP SS notification 'objectCreation'	Qualifier
correlatedNotifications	correlatedNotifications	O
sourceIndicator	sourceIndicator	O
attributeList	attributeList	O
no equivalence	additionalText	O
no equivalence	additionalInformation	O

## 4.2.4.2 Mapping of parameters of the notification 'notifyObjectDeletion'

**Table 8: Mapping of parameters of the notification 'notifyObjectDeletion'**

parameter of the Basic CM IRP IS notification 'notifyObjectDeletion'	parameter of the CMIP SS notification 'objectDeletion'	Qualifier
correlatedNotifications	correlatedNotifications	O
sourceIndicator	sourceIndicator	O
attributeList	attributeList	O
no equivalence	additionalText	O
no equivalence	additionalInformation	O

## 4.2.4.3 Mapping of parameters of the notification 'notifyAttributeValueChange'

**Table 9: Mapping of parameters of the notification 'notifyAttributeValueChange'**

parameter of the Basic CM IRP IS notification 'notifyAttributeValueChange'	parameter of the CMIP SS notification 'attributeValueChange'	Qualifier
correlatedNotifications	correlatedNotifications	O
sourceIndicator	sourceIndicator	O
attributeValueChangeDefinition	attributeValueChangeDefinition	M
no equivalence	attributeIdentifierList	O
no equivalence	additionalText	O
no equivalence	additionalInformation	O

## 4.2.5 Mapping of MOCs

The table below maps the MOCs defined in the CM IRP Network Resource Model onto the equivalent MOCs of the CMIP solution set.

**Table 10: Mapping of MOCs**

MOCs of the Basic CM IRP NRM	MOCs of the CMIP SS
AlarmIRP	alarmControl (defined in 3GPP TS 32.111-4)
AucFunction	aucFunction
BasicCmIRP	bcmControl
G3ManagedElement	g3ManagedElement
G3SubNetwork	g3SubNetwork
GgsnFunction	ggsnFunction
GmscFunction	gmscFunction
HlrFunction	hlrFunction
IRPAgent	irpAgent
IubLink	iubLink
ManagedFunction	managedFunction
ManagementNode	managementNode
MeContext	meContext
MscFunction	mscFunction
NodeBFunction	nodeBFunction
NotificationIRP	notificationControl (defined in 3GPP TS 32.106-4)
RncFunction	rncFunction
SgsnFunction	sgsnFunction
SmsGmscFunction	smsGmscFunction
SmsIwmscFunction	smsIwmscFunction
UtranCell	utranCell
VlrFunction	vlrFunction

## 4.2.6 Mapping of Attributes

**Table 11: Mapping of Attributes**

Attribute defined in 3GPP TS 32.106-5	Attribute defined in this CMIP SS
alarmIRPId	alarmControllId
aucFunctionId	aucFunctionId
basicCmIRPId	basicCmControllId
bgFunctionId	bgFunctionId
dnPrefix	systemTitle
eirFunctionId	eirFunctionId
g3ManagedElementId	g3ManagedElementId
g3SubNetworkId	g3SubNetworkId
ggsnFunctionId	ggsnFunctionId
gmscFunctionId	gmscFunctionId
hlrFunctionId	hlrFunctionId
irpAgentId	irpAgentId
irpVersion	supportedBcmIRPVersions supportedAlarmIRPVersion (3GPP TS 32.111-4) supportedNotificationIRPVersion (3GPP TS 32.106-4)
iubLinkId	iubLinkId
iubLink-NodeBFunction	iubLinkNodeBFunctionLink
iubLink-UtranCell	iubLinkUtranCellLink
locationName	locationName
managedBy	meManagedBy
managedElementType	managedElementType
managementNodeId	managementNodeId
manages	mnManagesList
meContextId	meContextId
mscFunctionId	mscFunctionId
vlrFunctionId	vlrFunctionId
nodeBFunctionId	nodeBFunctionId
nodeBFunction-IubLink	nodeBiubLinkLink
nodeBFunction-UtranCell	nodeButranCellLinkList
notificationIRPId	notificationControllId
rncFunctionId	rncFunctionId
sgsnFunctionId	sgsnFunctionId
smsGmscFunctionId	smsGmscFunctionId
smslwmscFunctionId	smslwmscFunctionId
systemDN	no equivalence
userDefinedState	userDefinedState
userLabel	userLabel
utranCellId	utranCellId
utranCell-IubLink	utranCelliubLinkLink
utranCell-NodeBFunction	utranCellNodeBLink
vendorName	vendorName

---

## 5 GDMO Definitions

### 5.1 Managed Object Classes

#### **aucFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

aucFunctionBasicPackage PACKAGE

BEHAVIOUR

aucFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an AUC";;

ATTRIBUTES

aucFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 1};

#### **bcmControl** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;

CHARACTERIZED BY

bcmControlBasicPackage,

bcmIRPVersionPackage;

REGISTERED AS {ts32-106-7BCMObjectClass 2};

#### **bgFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

bgFunctionBasicPackage PACKAGE

BEHAVIOUR

bgFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an BG";;

ATTRIBUTES

bgFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 3};

#### **eirFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

eirFunctionBasicPackage PACKAGE

BEHAVIOUR

eirFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an EIR";;



## ATTRIBUTES

eirFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 4};

**ggsnFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

ggsnFunctionBasicPackage PACKAGE

BEHAVIOUR

ggsnFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an GGSN";;

ATTRIBUTES

ggsnFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 5};

**g3ManagedElement** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;

CHARACTERIZED BY

g3ManagedElementBasicPackage,

g3ManagedElementAssociationPackage;

CONDITIONAL PACKAGES

"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.",

"Recommendation M.3100: 1995":processingErrorAlarmPackage PRESENT IF

"the processingErrorAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",

"Recommendation M.3100: 1995":environmentalAlarmPackage PRESENT IF

"the environmentalAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",

communicationsAlarmPackage PRESENT IF

"the communicationsAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",

equipmentAlarmPackage PRESENT IF

"the equipmentAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 6};

**g3SubNetwork** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;  
 CHARACTERIZED BY  
 g3SubNetworkBasicPackage;  
 CONDITIONAL PACKAGES  
 "Recommendation M.3100: 1995":attributeValueChangeNotificationPackage PRESENT IF  
 "the attributeValueChange notifications defined in Recommendation X.721  
 are supported by an instance of this class.",  
 "Recommendation M.3100: 1995":environmentalAlarmPackage PRESENT IF  
 "the environmentalAlarm notifications defined in Recommendation X.721  
 are supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 7};

#### **hlrFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;  
 CHARACTERIZED BY  
 hlrFunctionBasicPackage PACKAGE  
 BEHAVIOUR  
 hlrFunctionBasicPackageBehaviour BEHAVIOUR  
 DEFINED AS  
 "An instance of MOC represents the logical function of a HLR";;  
 ATTRIBUTES  
 hlrFunctionId GET;;;;

REGISTERED AS {ts32-106-7BCMObjectClass 8};

#### **gmscFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;  
 CHARACTERIZED BY  
 gmscFunctionBasicPackage PACKAGE  
 BEHAVIOUR  
 gmscFunctionBasicPackageBehaviour BEHAVIOUR  
 DEFINED AS  
 "An instance of MOC represents the logical function of a GMSC";;  
 ATTRIBUTES  
 gmscFunctionId GET;;;;

REGISTERED AS {ts32-106-7BCMObjectClass 9};

#### **irpAgent** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;  
 CHARACTERIZED BY  
 irpAgentBasicPackage;  
 CONDITIONAL PACKAGES  
 "Recommendation M.3100: 1995":processingErrorAlarmPackage PRESENT IF

"the processingErrorAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",  
communicationsAlarmPackage PRESENT IF

"the communicationsAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 10};

#### **iubLink** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

iubLinkBasicPackage,

iubLinkMandatoryAssociationPackage;

CONDITIONAL PACKAGES

iubLinkOptionalAssociationPackage PRESENT IF

"the attribute IubLink-UtranCell of MOC IubLink defined in 3GPP TS 32.106-5 is supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 11};

#### **managedFunction** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;

CHARACTERIZED BY

managedFunctionBasicPackage;

CONDITIONAL PACKAGES

"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.",

"Recommendation M.3100: 1995":processingErrorAlarmPackage PRESENT IF

"the processingErrorAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",

communicationsAlarmPackage PRESENT IF

"the communicationsAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.",

qualityOfServiceAlarmPackage PRESENT IF

"the qualityOfServiceAlarm notifications defined in Recommendation X.721 are supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 12};

#### **managementNode** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;

CHARACTERIZED BY

managementNodeBasicPackage,  
managementNodeAssociationPackage;

#### CONDITIONAL PACKAGES

"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.",

"Recommendation M.3100: 1995":processingErrorAlarmPackage PRESENT IF  
"the processingErrorAlarm notifications defined in Recommendation X.721  
are supported by an instance of this class.",

"Recommendation M.3100: 1995":environmentalAlarmPackage PRESENT IF  
"the environmentalAlarm notifications defined in Recommendation X.721  
are supported by an instance of this class.",

communicationsAlarmPackage PRESENT IF  
"the communicationsAlarm notifications defined in Recommendation X.721  
are supported by an instance of this class.",

equipmentAlarmPackage PRESENT IF  
"the equipmentAlarm notifications defined in Recommendation X.721  
are supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 13};

#### **meContext** MANAGED OBJECT CLASS

DERIVED FROM "Recommendation X.721: 1992":top;

#### CHARACTERIZED BY

meContextBasicPackage;

#### CONDITIONAL PACKAGES

"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.";

REGISTERED AS {ts32-106-7BCMObjectClass 14};

#### **mscFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

#### CHARACTERIZED BY

mscFunctionBasicPackage PACKAGE

#### BEHAVIOUR

mscFunctionBasicPackageBehaviour BEHAVIOUR

#### DEFINED AS

"An instance of MOC represents the logical function of a MSC";;

#### ATTRIBUTES

mscFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 15};

**nodeBFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

nodeBFunctionBasicPackage,

nodeBFunctionMandatoryAssociationPackage;

CONDITIONAL PACKAGES

nodeBFunctionOptionalAssociationPackage PRESENT IF

“the attribute NodeB-UtranCell of MOC NodeBFunction defined in  
3GPP TS 32.106-5 is supported by an instance of this class.”;

REGISTERED AS {ts32-106-7BCMObjectClass 16};

**rncFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

rncFunctionBasicPackage;

REGISTERED AS {ts32-106-7BCMObjectClass 17};

**sgsnFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

sgsnFunctionBasicPackage PACKAGE

BEHAVIOUR

sgsnFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an SGSN";;

ATTRIBUTES

sgsnFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 18};

**smsGmscFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

smsGmscFunctionBasicPackage PACKAGE

BEHAVIOUR

smsGmscFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an smsGMSC";;

ATTRIBUTES

smsGmscFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 19};

**smsIwmscFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

smsIwmscFunctionBasicPackage PACKAGE

BEHAVIOUR

smsIwmscFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of an smsIWMSC";;

ATTRIBUTES

smsIwmscFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 20};

**utranCell** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

utranCellBasicPackage;

CONDITIONAL PACKAGES

utranCellNodeBAssociationPackage PRESENT IF

"the attribute UtranCell-NodeB of MOC UtranCell defined in 3GPP TS 32.106-5 is supported by an instance of this class.",

utranCellIubLinkAssociationPackage PRESENT IF

"the attribute UtranCell-IubLink of MOC UtranCell defined in 3GPP TS 32.106-5 is supported by an instance of this class.";

REGISTERED AS {ts32-106-7BCMObjectClass 21};

**vlrFunction** MANAGED OBJECT CLASS

DERIVED FROM managedFunction;

CHARACTERIZED BY

vlrFunctionBasicPackage PACKAGE

BEHAVIOUR

vlrFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS

"An instance of MOC represents the logical function of a VLR";;

ATTRIBUTES

vlrFunctionId GET;;;

REGISTERED AS {ts32-106-7BCMObjectClass 22};

## 5.2 Packages

### **bcmControlBasicPackage** PACKAGE

#### BEHAVIOUR

bcmControlBasicPackageBehaviour;

#### ATTRIBUTES

bcmControlId GET;

REGISTERED AS {ts32-106-7BCMPackage 1};

### **bcmIRPVersionPackage** PACKAGE

#### BEHAVIOUR

bcmIRPVersionPackageBehaviour;

#### ATTRIBUTES

supportedBcmIRPVersions GET;

#### ACTIONS

getBCmIRPVersion;

REGISTERED AS {ts32-106-7BCMPackage 2};

### **communicationsAlarmPackage** PACKAGE

#### NOTIFICATIONS

"Recommendation X.721:1992": communicationsAlarm;

REGISTERED AS {ts32-106-7BCMPackage 3};

### **equipmentAlarmPackage** PACKAGE

#### NOTIFICATIONS

"Recommendation X.721:1992": equipmentAlarm;

REGISTERED AS {ts32-106-7BCMPackage 4};

### **g3ManagedElementAssociationPackage** PACKAGE

#### BEHAVIOUR

g3ManagedElementAssociationPackageBehaviour;

#### ATTRIBUTES

meManagedBy GET;

REGISTERED AS {ts32-106-7BCMPackage 5};

### **g3ManagedElementBasicPackage** PACKAGE

#### BEHAVIOUR

g3ManagedElementBasicPackageBehaviour;

#### ATTRIBUTES

managedElementId GET,

managedElementType GET,

userDefinedState GET,

"Recommendation X.721: 1992" : systemTitle GET,

"Recommendation M.3100: 1995" : userLabel GET,

"Recommendation M.3100: 1995" : vendorName GET,  
"Recommendation M.3100: 1995" : locationName GET;  
REGISTERED AS {ts32-106-7BCMPackage 6};

### **g3SubNetworkBasicPackage** PACKAGE

#### BEHAVIOUR

g3SubNetworkBasicPackageBehaviour;

#### ATTRIBUTES

g3SubNetworkId GET,

"Recommendation X.721: 1992": systemTitle GET,

"Recommendation M.3100: 1995" : userLabel GET;

REGISTERED AS {ts32-106-7BCMPackage 7};

### **irpAgentBasicPackage** PACKAGE

#### BEHAVIOUR

irpAgentBasicPackageBehaviour;

#### ATTRIBUTES

irpAgentId GET,

"Recommendation M.3100: 1995" : userLabel GET,

supportedIRPs GET;

REGISTERED AS {ts32-106-7BCMPackage 8};

### **iubLinkMandatoryAssociationPackage** PACKAGE

#### BEHAVIOUR

iubLinkMandatoryAssociationPackageBehaviour;

#### ATTRIBUTES

iubLinkNodeBFunctionLink GET;

REGISTERED AS {ts32-106-7BCMPackage 9};

### **iubLinkOptionalAssociationPackage** PACKAGE

#### BEHAVIOUR

iubLinkOptionalAssociationPackageBehaviour;

#### ATTRIBUTES

iubLinkUtranCellLink GET;

REGISTERED AS {ts32-106-7BCMPackage 10};

### **iubLinkBasicPackage** PACKAGE

#### BEHAVIOUR

iubLinkBasicPackageBehaviour;

#### ATTRIBUTES

iubLinkId GET;

REGISTERED AS {ts32-106-7BCMPackage 11};



**managedFunctionBasicPackage** PACKAGE

## BEHAVIOUR

managementFunctionBasicPackageBehaviour;

## ATTRIBUTES

"Recommendation M.3100: 1995" : userLabel GET;

REGISTERED AS {ts32-106-7BCMPackage 12};

**managementNodeAssociationPackage** PACKAGE

## BEHAVIOUR

managementNodeAssociationPackageBehaviour;

## ATTRIBUTES

mnManagesList GET;

REGISTERED AS {ts32-106-7BCMPackage 13};

**managementNodeBasicPackage** PACKAGE

## ATTRIBUTES

managementNodeId GET;

REGISTERED AS {ts32-106-7BCMPackage 14};

**meContextBasicPackage** PACKAGE

## BEHAVIOUR

meContextBasicPackageBehaviour;

## ATTRIBUTES

meContextId GET,

"Recommendation X.721: 1992" : systemTitle GET;

REGISTERED AS {ts32-106-7BCMPackage 15};

**nodeBFunctionOptionalAssociationPackage** PACKAGE

## BEHAVIOUR

nodeBFunctionOptionalAssociationPackageBehaviour;

## ATTRIBUTES

nodeButranCellLinkList GET;

REGISTERED AS {ts32-106-7BCMPackage 16};

**nodeBFunctionMandatoryAssociationPackage** PACKAGE

## BEHAVIOUR

nodeBFunctionMandatoryAssociationPackageBehaviour;

## ATTRIBUTES

nodeBiubLinkLink GET;

REGISTERED AS {ts32-106-7BCMPackage 17};

**nodeBFunctionBasicPackage** PACKAGE

**BEHAVIOUR**

nodeBFunctionBasicPackageBehaviour;

**ATTRIBUTES**

nodeBFunctionId GET;

REGISTERED AS {ts32-106-7BCMPackage 18};

**qualityOfServiceAlarmPackage PACKAGE****NOTIFICATIONS**

"Recommendation X.721:1992": qualityofServiceAlarm;

REGISTERED AS {ts32-106-7BCMPackage 19};

**rncFunctionBasicPackage PACKAGE****BEHAVIOUR**

rncFunctionBasicPackageBehaviour;

**ATTRIBUTES**

rncFunctionId GET;

REGISTERED AS {ts32-106-7BCMPackage 20};

**utranCellIubLinkAssociationPackage PACKAGE****BEHAVIOUR**

utranCellIubLinkAssociationPackageBehaviour;

**ATTRIBUTES**

utranCellIubLinkLink GET;

REGISTERED AS {ts32-106-7BCMPackage 21};

**utranCellNodeBAssociationPackage PACKAGE****BEHAVIOUR**

utranCellNodeBAssociationPackageBehaviour;

**ATTRIBUTES**

utranCellNodeBLink GET;

REGISTERED AS {ts32-106-7BCMPackage 22};

**utranCellBasicPackage PACKAGE****BEHAVIOUR**

utranCellBasicPackageBehaviour;

**ATTRIBUTES**

utranCellId GET;

REGISTERED AS {ts32-106-7BCMPackage 23};

## 5.3 Actions

**getBCmIRPVersion ACTION**

BEHAVIOUR

getBCmIRPVersionBehaviour;

MODE CONFIRMED;

WITH REPLY SYNTAX TS32-106-BCM-TypeModule.GetBCmIRPVersionReply;

REGISTERED AS {ts32-106-7BCMAction 1};

## 5.4 Attributes

### **aucFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    aucFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 1};

### **bcmControlId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    bcmControlIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 2};

### **bgFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    bgFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 3};

### **eirFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    eirFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 4};

### **ggsnFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    ggsnFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 5};

### **gmscFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    gmscFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 6};

**g3SubNetworkId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    g3SubNetworkIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 7};

**hlrFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    hlrFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 8};

**irpAgentId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    irpAgentIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 9};

**iubLinkNodeBFunctionLink** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointer;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    iubLinkNodeBFunctionLinkBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 10};

**iubLinkUtranCellLink** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointerList;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    iubLinkUtranCellLinkBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 11};

**iubLinkId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    iubLinkIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 12};

**managedElementId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    managedElementIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 13};

**managedElementType** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .ManagedElementType;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    managedElementBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 14};

**managementNodeId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    managmentNodeIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 15};

**meContextId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    meContextIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 16};

**meManagedBy** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointer;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    meManagedByBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 17};

**mnManagesList** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointerList;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    mnManagesListBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 18};

**mscFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    mncFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 19};

**nodeBiubLinkLink** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointer;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    nodeBiubLinkLinkBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 20};

**nodeButranCellLinkList** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointerList;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    nodeButranCellLinkListBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 21};

**nodeBFunctionId** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    nodeBFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 22};

**rncFunctionId** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    rncFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 23};

**sgsnFunctionId** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;  
MATCHES FOR EQUALITY;  
BEHAVIOUR  
    sgsnFunctionIdBehaviour;  
REGISTERED AS {ts32-106-7BCMAAttribute 24};

**smsIwmscFunctionId** ATTRIBUTE  
WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;

MATCHES FOR EQUALITY;

BEHAVIOUR

    smsIwmscFunctionIdBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 25};

**smsGmscFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;

MATCHES FOR EQUALITY;

BEHAVIOUR

    smsGmscFunctionIdBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 26};

**supportedBcmIRPVersions** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .SupportedBCmIRPVersions;

MATCHES FOR EQUALITY;

BEHAVIOUR

    supportedBCmIRPVersionsBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 27};

**supportedIRPs** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .SupportedIRPs;

MATCHES FOR EQUALITY;

BEHAVIOUR

    supportedIRPsBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 28};

**vlrFunctionId** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;

MATCHES FOR EQUALITY;

BEHAVIOUR

    vlrFunctionIdBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 29};

**utranCelliubLinkLink** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointer;

MATCHES FOR EQUALITY;

BEHAVIOUR

    utranCelliubLinkLinkBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 30};

**utranCellNodeBLink** ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectPointer;

MATCHES FOR EQUALITY;



**BEHAVIOUR**

    utranCellNodeBLinkBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 31};

**userDefinedState ATTRIBUTE**

    WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .UserDefinedState;

    MATCHES FOR EQUALITY;

**BEHAVIOUR**

    userDefinedStateBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 32};

**utranCellId ATTRIBUTE**

    WITH ATTRIBUTE SYNTAX TS32-106-7TypeModule .GeneralObjectId;

    MATCHES FOR EQUALITY;

**BEHAVIOUR**

    utranCellIdBehaviour;

REGISTERED AS {ts32-106-7BCMAAttribute 33};

## 5.5 Name Bindings

### **alarmControl-irpAgent** NAME BINDING

SUBORDINATE OBJECT CLASS "3GPP TS 32.111-4":alarmControl;  
NAMED BY SUPERIOR OBJECT CLASS irpAgent;  
WITH ATTRIBUTE "3GPP TS 32.111-4":alarmControlId;  
BEHAVIOUR  
    alarmControl-irpAgentBehavior;  
CREATE WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 1};

### **aucFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS aucFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE aucFunctionId;  
BEHAVIOUR  
    aucFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 2};

### **bcmControl-irpAgent** NAME BINDING

SUBORDINATE OBJECT CLASS bcmControl;  
NAMED BY SUPERIOR OBJECT CLASS irpAgent;  
WITH ATTRIBUTE bcmControlId;  
BEHAVIOUR  
    bcmControl-irpAgentBehavior;  
CREATE WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 3};

### **bsFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS bgFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE bgFunctionId;  
BEHAVIOUR  
    bgFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 4};

### **eirFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS eirFunction;

NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE eirFunctionId;  
BEHAVIOUR  
    eirFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 5};

**ggsnFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS ggsnFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE ggsnFunctionId;  
BEHAVIOUR  
    ggsnFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 6};

**gmscFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS mscFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE gmscFunctionId;  
BEHAVIOUR  
    gmscFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 7};

**g3ManagedElement-meContext** NAME BINDING

SUBORDINATE OBJECT CLASS g3ManagedElement;  
NAMED BY SUPERIOR OBJECT CLASS meContext;  
WITH ATTRIBUTE managedElementId;  
BEHAVIOUR  
    g3ManagedElement-meContextBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 8};

**g3ManagedElement-g3SubNetwork** NAME BINDING

SUBORDINATE OBJECT CLASS g3ManagedElement;  
NAMED BY SUPERIOR OBJECT CLASS g3SubNetwork;  
WITH ATTRIBUTE managedElementId;

**BEHAVIOUR**

g3ManagedElement-g3SubNetworkBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 9};

**hlrFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS hlrFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE hlrFunctionId;  
**BEHAVIOUR**  
hlrFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 10};

**irpAgent-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS irpAgent;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE irpAgentId;  
**BEHAVIOUR**  
irpAgent-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 11};

**irpAgent-g3SubNetwork** NAME BINDING

SUBORDINATE OBJECT CLASS irpAgent;  
NAMED BY SUPERIOR OBJECT CLASS g3SubNetwork;  
WITH ATTRIBUTE irpAgentId;  
**BEHAVIOUR**  
irpAgent-g3SubNetworkBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 12};

**irpAgent-managementNode** NAME BINDING

SUBORDINATE OBJECT CLASS irpAgent;  
NAMED BY SUPERIOR OBJECT CLASS managementNode;  
WITH ATTRIBUTE irpAgentId;  
**BEHAVIOUR**  
irpAgent-managementNodeBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;

DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 13};

**iubLink-rncFunction** NAME BINDING

SUBORDINATE OBJECT CLASS iubLink;  
NAMED BY SUPERIOR OBJECT CLASS rncFunction;  
WITH ATTRIBUTE iubLinkId;  
BEHAVIOUR  
    iubLink-rncFunctionBahaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 14};

**managementNode-g3SubNetwork** NAME BINDING

SUBORDINATE OBJECT CLASS managementNode;  
NAMED BY SUPERIOR OBJECT CLASS g3SubNetwork;  
WITH ATTRIBUTE managementNodeId;  
BEHAVIOUR  
    managementNode-g3SubNetworkBahaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 15};

**meContext-g3SubNetwork** NAME BINDING

SUBORDINATE OBJECT CLASS meContext;  
NAMED BY SUPERIOR OBJECT CLASS g3SubNetwork;  
WITH ATTRIBUTE meContextId;  
BEHAVIOUR  
    meContext-g3SubNetworkBahaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 16};

**mscFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS mscFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE mscFunctionId;  
BEHAVIOUR  
    mscFunction-g3ManagedElementBahaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 17};

**nodeBFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS nodeBFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE nodeBFunctionId;  
BEHAVIOUR  
    nodeBFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 18};

**notificationControl-irpAgent** NAME BINDING

SUBORDINATE OBJECT CLASS "3GPP TS 32.106-4":notificationControl;  
NAMED BY SUPERIOR OBJECT CLASS irpAgent;  
WITH ATTRIBUTE "3GPP TS 32.106-4":notificationControlId;  
BEHAVIOUR  
    notificationControl-irpAgentBehavior;  
CREATE WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 19};

**rncFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS rncFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE rncFunctionId;  
BEHAVIOUR  
    rncFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 20};

**sgsnFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS sgsnFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE sgsnFunctionId;  
BEHAVIOUR  
    sgsnFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 21};

**smsGmscFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS smsGmscFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;

WITH ATTRIBUTE smsGmscFunctionId;  
BEHAVIOUR  
    smsGmscFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 22};

**smsIwmscFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS smsIwmscFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE smsIwmscFunctionId;  
BEHAVIOUR  
    smsIwmscFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 23};

**utranCell-rncFunction** NAME BINDING

SUBORDINATE OBJECT CLASS utranCell;  
NAMED BY SUPERIOR OBJECT CLASS rncFunction;  
WITH ATTRIBUTE utranCellId;  
BEHAVIOUR  
    utranCell-rncFunctionBahaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 24};

**vlrFunction-g3ManagedElement** NAME BINDING

SUBORDINATE OBJECT CLASS vlrFunction;  
NAMED BY SUPERIOR OBJECT CLASS g3ManagedElement;  
WITH ATTRIBUTE vlrFunctionId;  
BEHAVIOUR  
    vlrFunction-g3ManagedElementBehaviour;  
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;  
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;  
REGISTERED AS {ts32-106-7BCMNameBinding 25};

## 5.6 Behaviours

### **alarmControl-irpAgentBehavior** BEHAVIOUR

DEFINED AS

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

### **aucFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a aucFunction instance.";

### **aucFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a aucFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

### **bcmControlBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"The object class bcmControl offers the functions defined in the CM IRP IS enabling to control the behaviour and to retrieve the management information related a Basic CM IRP agent.

An instance of the 'BCmControl' MOC is identified by the value of the attribute 'bcmControlId'.";

### **bcmControlIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'bcmControl' object class.";

### **bcmIRPVersionPackageBehaviour** BEHAVIOUR

DEFINED AS

"This package has been defined to allow the Manager to get information about the Basic CM IRP versions supported by the Agent.

The attribute 'supportedBCmIRPVersions' indicates all versions of the Basic IRP currently supported by the Agent. .

With the action 'getBasicCmIRPVersion' a manager can find out the versions of the Basic CM IRP CMIP solution sets the Agent supports.";

### **bcmControl-irpAgentBehavior** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a irpAgent contains and controls an bcmControl. When automatic instance naming is used, the choice



of name bindings left as a local matter.";

#### **bgFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a bgFunction instance.";

#### **bgFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a bgFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **eirFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a eirFunction instance.";

#### **eirFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a eirFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **getBCmIRPVersionBehaviour** BEHAVIOUR

DEFINED AS

"A Manager invokes this action to enquiry about the versions of the Basic CM IRP CMIP solution set which the concerned Agent supports.

The 'Action information' field contains no data:

The 'Action response' is composed of the following data:

\* versionNumbersList It contains a list of versions supported by the concerned agent which are backwards compatible. A list containing no element, i.e. a NULL list means that the concerned agent doesn't support any version of the Notification IRP.

\* status It contains the results of this action. Possible values: noError (0), error (the value indicates the reason of the error).";

#### **ggsnFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a ggsnFunction instance.";

#### **ggsnFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a ggsnFunction. When automatic instance naming is used, the choice

of name bindings left as a local matter.";

### **g3ManagedElement-meContextBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a meContext contains and controls a g3ManagedElement. When automatic instance naming is used, the choice of name bindings left as a local matter.";

### **g3ManagedElement-g3SubNetworkBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gMnetwork contains and controls a g3ManagedElement. When automatic instance naming is used, the choice of name bindings left as a local matter.";

### **g3ManagedElementAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute 'meManagedBy' points to the g3ManagmentNode instance which manages this g3ManagedElement instance. It implements the attribute *managedBy* of MOC G3ManagedElement defined in TS32.106-5.";

### **g3ManagedElementBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents telecommunications equipment within the telecommunications network that performs managed element functions, i.e. provides support and/or service to the subscriber. A managed element communicates with a manager (directly or indirectly) over one or more standard interfaces for the purpose of being monitored and/or controlled. A managed element contains equipment that may or may not be geographically distributed. A Managed Element is often referred to as a 'node' or a 'network element'.";

### **g3SubNetworkBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents collections of interconnected telecommunications and management objects (logical or physical) capable of exchanging information. A network may be nested within another (larger) network, thereby forming a containment relationship.";

### **g3SubNetworkIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'g3SubNetwork' object class.";

### **gmscFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a gmscFunction instance.";

#### **gmscFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a gmscFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **hlrFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a hlrFunction instance.";

#### **hlrFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a hlrFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **irpAgentBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This MOC may have only one instance in R99. The instance of this MOC represents the behavior of an IRP Agent which implements one or more IRPs, e.g. AlarmIRP defined in 3GPP TS 32.111-2, NotificationIRP defined in TS32.106-2 and Basic CM IRP defined in 3GPP TS 32.106-5";

#### **irpAgentIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies an irpAgent instance.";

#### **irpAgent-g3SubNetworkBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a g3SubNetwork contains and controls a irpAgent. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **irpAgent-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a g3ManagedElement contains and controls a irpAgent. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **irpAgent-managementNodeBehaviour** BEHAVIOUR

**DEFINED AS**

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

**iubLinkNodeBFunctionLinkBehaviour** BEHAVIOUR**DEFINED AS**

"This attribute points to the nodeBFunction instance which this iubLink instance connects directly to.";

**iubLink-rncFunctionBehaviour** BEHAVIOUR**DEFINED AS**

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

**iubLinkMandatoryAssociationPackageBehaviour** BEHAVIOUR**DEFINED AS**

"The attribute 'iubLinkNodeBFunctionLink' points to the nodeBFunction instance which this iubLink instance connects to.";

**iubLinkBasicPackageBehaviour** BEHAVIOUR**DEFINED AS**

"This managed object class models the Iub Link between a Node-B and a RNC.";

**iubLinkIdBehaviour** BEHAVIOUR**DEFINED AS**

"This attribute names an instance of the 'iubLink' object class.";

**iubLinkOptionalAssociationPackageBehaviour** BEHAVIOUR**DEFINED AS**

"This package defines an attribute implementing the association XXX, pointing from an iubLink to a list of utranCell, defined in 32.106-5. This is an optional package. An instance of utranCell has to be associated by an iubLink instance by using this package or/and associated by an nodeBFunction by using the package nodeBOptionalAssociationPackage.";

**iubLinkUtranCellLinkBehaviour** BEHAVIOUR**DEFINED AS**

"This attribute points from an iubLink instance to a list of utranCell instance";

**managedElementBehaviour** BEHAVIOUR**DEFINED AS**

"This is a multi-value attribute specifying the sub-classes of managedFunction this managedElement instance is containing, for instances, RNC, NodeB or RNC+NodeB.";

**managedElementIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the '3gManagedElement' object class.";

**managementFunctionBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This Managed Object class corresponds to the class gsmManagedFunction defined in GSM 12.20 0 and is provided for sub-classing only. It provides the attributes that are common to functional MO classes. Note that a managed element may contain several managed functions. The ManagedFunction may be extended in the future if more common characteristics to functional objects are identified.";

**managementNode-g3SubNetworkBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gSubNetwork contains and controls a managementNode. When automatic instance naming is used, the choice of name bindings left as a local matter.";

**managementNodeAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute 'mnManagesList' points to all g3ManagedElement instances which this managementNode instance manages. It implements the attribute *manages* of MOC ManagementNode defined in TS32.106-5.";

**managementNodeBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents a telecommunications management system (EM or NM) within the TMN, that manages a number of Managed Elements. The management system communicates with the MEs directly or indirectly over one or more standard interfaces for the purpose of monitoring and/or controlling these MEs.";

**managmentNodeIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'managmentNode' object class.";

**meContext-g3SubNetworkBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gSubnetwork contains and controls a meContext. When automatic instance naming is used, the choice of name

bindings left as a local matter.";

#### **meContextBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents the Managed Element from the network perspective. It can be used to hold surveillance status information, and also planning status information for the case when the managed element is part of a planned configuration in a management system, before it has been taken into service. It can also support unambiguous naming in all cases, also for scenarios when the Managed Elements have been pre-configured where some of them may have equal names (to avoid necessary administration to make all of them globally unique at creation/installation time). Thus, by means of globally unique names for the MEContext instances, and by using these in the DN, the DNs for all MEs (and MOIs contained in them) can be assured to be globally unique, even in such a scenario as described above.";

#### **meContextIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'MEContext' object class.";

#### **meManagedByBehaviour** BEHAVIOUR

DEFINED AS

"This attribute points to the managementNode instance which manages the related 3gManagedElement instance.";

#### **mnManagesListBehaviour** BEHAVIOUR

DEFINED AS

"This attribute points to all 3gManagedElement instances which this 3gManagmentNode instance manages.";

#### **mscFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a mscFunction instance.";

#### **mscFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a mscFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **nodeBiubLinkLinkBehaviour** BEHAVIOUR

DEFINED AS

"This attribute points to the IubLink instance which connectes to the related

nodeBFunction instance directly.";

#### **nodeButranCellLinkListBehaviour** BEHAVIOUR

DEFINED AS

"This attribute points to all the untranCell instances which the related nodeBFunction instance connects directly to.";

#### **nodeBFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a nodeBFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

#### **nodeBFunctionOptionalAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute 'nodeButranCellLinkList' points to all the untranCell instances which this nodeBFunction instance connects directly to. It implements the attribute NodeBFunction-UtranCell of MOC NodeBFunction defined in TS32.106-5. ";

#### **nodeBFunctionMandatoryAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute 'nodeBiubLinkLink' points to the iubLink instance which connects to this nodeBFunction instance directly. It implements the attribute nodeB-IubLink of MOC NodeBFunction defined in TS32.106-5.";

#### **nodeBFunctionBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents the NodeB functionality.";

#### **nodeBFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'nodeBFunction' object class.";

#### **notificationControl-irpAgentBehavior** BEHAVIOUR

DEFINED AS

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

#### **rncFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a rncFunction. When automatic instance naming is used, the choice

of name bindings left as a local matter.";

**rncFunctionBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This MOC represents RNC function.";

**rncFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'rncFunction' object class.";

**sgsnFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a sgsnFunction instance.";

**sgsnFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a sgsnFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

**smsGmscFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a smsGmscFunction instance.";

**smsGmscFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a smsGmscFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

**smsIwmscFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a iwmscFunction instance.";

**smsIwmscFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a smsIwmscFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

**supportedBCmIRPVersionsBehaviour** BEHAVIOUR

DEFINED AS



"This attribute provides the information concerning the Basic CM IRP versions currently supported by the Agent.";

**supportedIRPsBehaviour** BEHAVIOUR

DEFINED AS

"This attribute provides the information about IRPs an IRPAgent supports.";

**utranCellIubLinkLinkBehaviour** BEHAVIOUR

DEFINED AS

"This attribute implements the attribute UtranCell-IubLink of MOC UtranCell Defined in TS32.106-5.";

**utranCellNodeBLinkBehaviour** BEHAVIOUR

DEFINED AS

" This attribute implements the attribute UtranCell-NodeBFunction of MOC UtranCell Defined in TS32.106-5.";

**userDefinedStateBehaviour** BEHAVIOUR

DEFINED AS

"This attribute specifies an operator defined state for operator specific usage.";

**utranCell-rncFunctionBehaviour** BEHAVIOUR

DEFINED AS

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

**utranCellIubLinkAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute `utranCellIubLinkLink` points to the iubLink instance which connectes to this utranCell instance.";

**utranCellNodeBAssociationPackageBehaviour** BEHAVIOUR

DEFINED AS

"The attribute `utranCellNodeBLink` points to the nodeBFunction instance which connectes to this utranCell instance.";

**utranCellBasicPackageBehaviour** BEHAVIOUR

DEFINED AS

"This managed object class represents the radio cell controlled by the RNC.";

**utranCellIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute names an instance of the 'utranCell' object class.";

**vlrFunctionIdBehaviour** BEHAVIOUR

DEFINED AS

"This attribute identifies a vlrFunction instance.";

**vlrFunction-g3ManagedElementBehaviour** BEHAVIOUR

DEFINED AS

"The name binding represents a relationship in which a 3gManagedElement contains and controls a vlrFunction. When automatic instance naming is used, the choice of name bindings left as a local matter.";

## 6. ASN.1 Definitions

```
TS32-106-7TypeModule {ccitt (0) identified-organization (4) etsi (0)
    mobileDomain (0) umts-Operation-Maintenance (3) ts-32-106 (106) part7 (7)
    informationModel (0) asn1Module (2) version1 (1)}
```

```
DEFINITIONS IMPLICIT TAGS ::=
```

```
BEGIN
```

```
--EXPORTS everything
```

```
IMPORTS
```

```
ObjectInstance FROM CMIP-1 {joint-iso-ccitt ms(9) cmip(1) modules(0) protocol(3)};
```

```
-- 3GPP TS 32.106-7 related Object Identifiers
```

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

```
ts32-106Prefix OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-106(106)}
```

```
ts32-106Part7 OBJECT IDENTIFIER ::= { ts32-106Prefix part7(7)}
```

```
ts32-106-7InfoModel OBJECT IDENTIFIER ::= { ts32-106Part7 informationModel(0)}
```

```
ts32-106-7BCMObjectClass OBJECT IDENTIFIER ::= { ts32-106-7InfoModel managedObjectClass(3)}
```

```
ts32-106-7BCMPackage OBJECT IDENTIFIER ::= { ts32-106-7InfoModel package(4)}
```

```
ts32-106-7BCMPParameter OBJECT IDENTIFIER ::= { ts32-106-7InfoModel parameter(5)}
```

```
ts32-106-7BCMNameBinding OBJECT IDENTIFIER ::= { ts32-106-7InfoModel nameBinding(6)}
```

```
ts32-106-7BCMAAttribute OBJECT IDENTIFIER ::= { ts32-106-7InfoModel attribute(7)}
```

```
ts32-106-7BCMAAction OBJECT IDENTIFIER ::= { ts32-106-7InfoModel action(9)}
```

```
ts32-106-7BCMNotification OBJECT IDENTIFIER ::= { ts32-106-7InfoModel notification(10)}
```

```
-- Start of 3gPP SA5 own definitions
```

```
ErrorCauses ::= ENUMERATED
```

```
{
```

```
noError (0),
```

```
wrongInput (1),
```

```
unspecifiedErrorReason (255)
```

```
}
```

```
GeneralObjectId ::= INTEGER
```

```
GeneralObjectPointer ::= ObjectInstance
```

GeneralObjectPointerList ::= SEQUENCE OF ObjectInstance

GeneralUserLabel ::= GraphicString

GetBCmIRPVersionReply ::= SEQUENCE

```
{
versionNumbersList    SupportedBCmIRPVersions,
status                ErrorCauses
}
```

IRPNames ::= SET OF ENUMERATED

```
{
notificationIRP (1),
alarmIRP (2),
basicCMIRP (3)
}
```

IRPVersionNumber ::= GraphicString

ManagedElementType ::= SET OF ENUMERATED

```
{
rnc (1),
nodeB (2),
msc (3),
hLR (4),
vLR (5),
aUC (6),
eIR (7),
sms-IWNSC(8),
sms-GMSC (9),
sGSN (10),
gGSN (11),
bG (12),
gmsc (13)
}
```

SupportedBCmIRPVersions ::= SET OF IRPVersionNumber

SupportedIRPs ::= SET OF IRPNames

UserDefinedState ::= INTEGER

END -- of TS32-106-7TypeModule

---

## Annex A (informative): Change history

Change history					
TSG SA#	Version	CR	Tdoc SA	New Version	Subject/Comment
S_10	1.0.0	-	SP-000515	3.0.0	Approved at TSG SA #10 and placed under Change Control