Technical Specification Group Services and System Aspects **TSGS#13(01)0478**

Meeting #13, Beijing, China, 24-27 September 2001

Source: **SA5**

Title: **Rel-4 CR32.6x4 (IRP: CMIP SS) on Corrections due to specifications renumbering**

Document for: **Approval**

Agenda Item: **7.5.3**

Doc-1st-Level	Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Version Current	Version-New	Workitem
SP-010478	S5-010572	32.604	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM
SP-010478	S5-010573	32.614	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM
SP-010478	S5-010574	32.624	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM
SP-010478	S5-010575	32.634	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM
SP-010478	S5-010576	32.644	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM
SP-010478	S5-010577	32.654	001		Rel-4	Correction due to TS renumbering	F	4.0.0	4.1.0	OAM-CM

3GPP TSG-SA5 (Telecom Management) **S5-010572**
Meeting #22, Paris, France, 3-7 September 2001 **S5C010361**

CR-Form-v4

CHANGE REQUEST

⌘ **32.604** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change: ⌘

1. Change according to the new numbering of SA5 R4 documents
2. Making R4 independent of R99
3. Other editorial changes including error corrections in GDMO/ASN.1 codes.

Summary of change: ⌘

1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references.
2. Replacing GDMO references to R99 with real codes
3. Other editorial changes error correction including error corrections in GDMO/ASN.1 codes

Consequences if not approved: ⌘ The document would be inconsistent and unreadable. The GDMO/ASN.1 codes will contain compiling errors.

Clauses affected: ⌘ Clause 4, Clause 5 and Clause 6

Other specs affected: ⌘
☐ Other core specifications ⌘
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘

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Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

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 32.602 ~~-2~~ 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 32.602 ~~-2~~ 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 IS (3GPP TS 32.602 ~~-2~~) 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 [7]).

4.1.4 About cancelOperation

The service operation *cancelOperation* defined in the Basic CM IRP IS (3GPP TS 32.60 ~~1-~~2) provides the basic functionality required to cancel an on-going getContainment or getMoAttributes operation, which is a subset of the functionality provided by the corresponding CMISE service operation *M-CANCEL-GET*. *cancelOperation* is mapped to *M-CANCEL-GET* in this standard. This doesn't mean any limitation for using *M-Cancel*. Users of this standard are encouraged to use the whole functionality provided by *M-CANCEL-GET*.

4.2 Mapping

The semantics of the Basic CM IRP IS areis defined in 3GPP TS 32.602-2. The definitions of the management services and management information defined there are 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 Basic CM IRP.

4.2.1 Mapping of Operations

Table 2 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 (M) or Optional (O).

Table 1: Mapping of operations

Operations of Information Services of the Basic CM IRP defined in 3GPP TS 32.601-2602	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
`CancelOperation`	M-CANCEL-GET (CMISE Service)	O
`GetBasicCmIRPVersion`	M-ACTION getBCmIRPVersion (3GPP TS 32.106-7: 6.2001)	M

4.2.2 Mapping of operation parameters

Tables 3, 4 and 5 in the following subclauses show the parameters of each operation defined in the Information Service described in 3GPP TS 32.602-2 and their equivalences in the CMIP Solution Set.

4.2.2.1 Mapping of Parameters of ‘getMoAttributes’

Table 2: Mapping of parameters of ‘getMoAttributes’

Parameters of the operation ‘getMoAttributes’ defined in 3GPP TS 32.~~601~~-2602	CMISE M-GET parameters	Qualifier
`invokeIdentifier`	Invoke identifier	M
`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 3: Mapping of parameters of 'getContainment'

Parameters of the operation 'getContainment' defined in 3GPP TS 32.~~601~~ 2602	CMISE M-GET parameter	Qualifier
invokeIdentifier	Invoke identifier	M
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

4.2.2.4 Mapping of parameters of 'getBasicCmIRPVersion'

Table 4: Mapping of parameters of "getBasicCmIRPVersion"

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

4.2.2.3 Mapping of Parameters of 'cancelOperation'

Table 5: Mapping of parameters of 'cancelOperation'

Parameters of the operation 'getContainment' defined in 3GPP TS 32.~~601~~2602	CMISE M-CANCEL-GET parameter	Qualifier
`No equivalence`	Invoke identifier	M
`invokeIdentifier`	Get invoke identifier	M
`status`	Errors	M

4.2.3 Mapping of notifications

Table 6 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 (M) or Optional (O).

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

Tables 7, 8 and 9 in the following subclauses show the parameters of each notification defined in the Information Service described in 3GPP TS 32.602~~-2~~ and their equivalence in the CMIP Solution Set.

The mapping of common parameters of all kinds of notifications defined in 3GPP TS 32.602~~-2~~ is described in 3GPP TS 32.30~~0~~-4 and will not be repeated in the present 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 (ITU-T X.721)	O
`sourceIndicator`	sourceIndicator (ITU-T X.721)	O
`attributeList`	attributeList (ITU-T X.721)	O
`no equivalence`	additionalText (ITU-T X.721)	O
`no equivalence`	additionalInformation (ITU-T X.721)	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'	Pparameter of the CMIP SS notification 'objectDeletion'	Qualifier
correlatedNotifications	correlatedNotifications (ITU-T X.721)	O
sourceIndicator	sourceIndicator (ITU-T X.721)	O
attributeList	attributeList (ITU-T X.721)	O
no equivalence	additionalText (ITU-T X.721)	O
no equivalence	additionalInformation (ITU-T X.721)	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'	Pparameter of the CMIP SS notification 'attributeValueChange'	Qualifier
correlatedNotifications	correlatedNotifications (ITU-T X.721)	O
sourceIndicator	sourceIndicator (ITU-T X.721)	O
attributeValueChangeDefinition	attributeValueChangeDefinition (ITU-T X.721)	M
no equivalence	attributeIdentifierList (ITU-T X.721)	O
no equivalence	additionalText (ITU-T X.721)	O
no equivalence	additionalInformation (ITU-T X.721)	O

5 GDMO Definitions

~~No GDMO specification is currently required for this document.~~

5.1 Actions

getBCmIRPVersion ACTION
BEHAVIOUR
getBCmIRPVersionBehaviour;
MODE CONFIRMED;
WITH REPLY SYNTAX TS32-604TypeModule.GetBCmIRPVersionReply;
REGISTERED AS {ts32-604Action 1};

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:
* versionNumbersLis
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).";

6 ASN.1 Definitions

~~No ASN.1 specification is currently required for this document.~~

```
TS32-604TypeModule {ccitt (0) identified-organization (4) etsi (0)
        mobileDomain (0) umts-Operation-Maintenance (3) ts32-604 (604)
        informationModel (0) asn1Module (2) version1 (1)}



DEFINITIONS IMPLICIT TAGS ::=
BEGIN
--EXPORTS everything

--IMPORTS nothing


-- 3GPP TS 32.6041 related Object Identifiers

baseNodeUMTS  OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
                                    umts-Operation-Maintenance(3)}
ts32-604 OBJECT IDENTIFIER ::= { baseNodeUMTS ts32-604(604)}
ts32-604InfoModel     OBJECT IDENTIFIER ::= { ts32-604 informationModel(0)}

ts32-604ObjectClass   OBJECT IDENTIFIER ::= { ts32-604InfoModel managedObjectClass(3)}
ts32-604Package       OBJECT IDENTIFIER ::= { ts32-604InfoModel package(4)}
ts32-604Parameter     OBJECT IDENTIFIER ::= { ts32-604InfoModel parameter(5)}
ts32-604NameBinding   OBJECT IDENTIFIER ::= { ts32-604InfoModel nameBinding(6)}
ts32-604Attribute     OBJECT IDENTIFIER ::= { ts32-604InfoModel attribute(7)}
ts32-604Action        OBJECT IDENTIFIER ::= { ts32-604InfoModel action(9)}
ts32-604Notification  OBJECT IDENTIFIER ::= { ts32-604InfoModel notification(10)}


-- Start of 3gPP SA5 own definitions

ErrorCauses ::= ENUMERATED
{
noError (0),
wrongInput (1),
unspecifiedErrorReason (255)
}
GetBCmIRPVersionReply ::= SEQUENCE
{
versionNumbersList      SupportedBCmIRPVersions,
```

```
status          ErrorCauses
}
IRPVersionNumber ::= GraphicString
SupportedBCmIRPVersions ::= SET OF IRPVersionNumber

END  -- of TS32-604TypeModule
```

3GPP TSG-SA5 (Telecom Management) **S5-010573**
Meeting #22, Paris, France, 3-7 September 2001 **S5C010362**

CR-Form-v4

CHANGE REQUEST

⌘ **32.614** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
REL-4 *(Release 4)*
REL-5 *(Release 5)*

Reason for change:	⌘	1. Change according to the renumbering of SA5 R4 documents 2. Other editorial changes including error corrections in GDMO/ASN.1 codes.
Summary of change:	⌘	1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references. 2. Other editorial changes including error corrections in GDMO/ASN.1 codes.
Consequences if not approved:	⌘	The document would be inconsistent and unreadable.

Clauses affected:	⌘	Clause 4, Clause 5 and Clause 6
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Basic aspects

4.2 Explanation

An technology independent IRP Information Service is specified in the 3GPP TS 32.6120~~2-2~~ for the configuration management of 3G networks by using bulk data transfer, i.e. Bulk CM IRP IS. This technical specification provides a CMIP solution set of the Bulk CM IRP.

Within a CMIP TMN a network manager may use the operations and notifications defined in this TS to upload files containing managed information about the current configuration status of a concerned 3G network from the related element manager or to download files containing management commands to change the configuration of a concerned 3G network to the corresponding element manager. The concepts and the procedures of uploading and downloading are specified in the 3GPP TS 32.6120~~2-2~~. The syntax and the semantic of files to upload or to download are defined in the 3GPP TS 32.6150~~2-5~~.

4.3 Mapping

The sub-clauses below provide mapping tables between the technology independent operations and notifications defined in 3GPP TS 32.~~602-2~~612 and the CMIP actions and notifications specified in this document.

4.3.1 Mapping of Operations

The table below shows the mapping relation between the technology independent operations defined in 3GPP TS 32.~~602-2~~612 and the CMIP actions specified in this document.

technology independent operations defined in 3GPP TS 32.~~602-2~~612	CMIP actions specified in this document	Qualifiers of the CMIP actions specified in this document
startSession	startSession	M
endSession	endSession	M
upload	upload	M
download	download	M
activate	activate	M
fallback	fallback	M
abortSessionOperation	abortSessionOperation	M
getSessionIds	getSessionIds	M
getSessionStatus	getSessionStatus	M
getSessionLog	getSessionLog	M
getBulkCMIRPVersion	getBulkCMIRPVersion	M

Table 1 Mapping of operations

4.3.2 Mapping of Operation Parameters

The following sub-clauses map the parameters of each technology independent operations defined in the 3GPP TS 32.~~602-2~~612 to the parameters of the corresponding CMIP actions specified in this document.

4.3.2.1 Mapping of Parameters of the Operation startSession

parameters of the technology independent operation 'startSession' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'startSession' specified in this docment	Qualifier of the parameters of the CMIP action 'startSession' specified in this docment
sessionId	sessionId	Action information, M
status	status	Action response, M

Table 2 Mapping of parameters of the operation startSession

4.3.2.2 Mapping of Parameters of the Operation endSession

parameters of the technology independent operation 'endSession' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'endSession' specified in this docment	Qualifier of the parameters of the CMIP action 'endSession' specified in this docment
sessionId	sessionId	Action information, M
status	status	Action response, M

Table 3 Mapping of parameters of the operation endSession

4.3.2.3 Mapping of Parameters of the Operation upload

parameters of the technology independent operation 'upload' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'upload' specified in this docment	Qualifier of the parameters of the CMIP action 'upload' specified in this docment
sessionId	sessionId	Action information, M
uploadDataFile	uploadDataFile	Action information, M
baseObjectInstance	baseObjectInstance	Action information, M
scope	scope	Action information, M
filter	filter	Action information, M
status	status	Action response, M

Table 4 Mapping of parameters of the operation upload

4.3.2.4 Mapping of Parameters of the Operation download

parameters of the technology independent operation 'download' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'download' specified in this docment	Qualifier of the parameters of the CMIP action 'download' specified in this docment
sessionId	sessionId	Action information, M
downloadDataFile	downloadDataFile	Action information, M
status	status	Action response, M

Table 5 Mapping of parameters of the operation download#

4.3.2.5 Mapping of Parameters of the Operation activate

parameters of the technology independent operation 'activate'	parameters of the CMIP action 'activate' specified in this docment	Qualifier of the parameters of the CMIP action 'activate' specified in

defined in the 3GPP TS 32.~~602~~ 2612	'activate' specified in this docment	this docment
sessionId	sessionId	Action information, M
saveFallback	saveFallback	Action information, M
status	status	Action response, M

Table 6 Mapping of parameters of the operation activate

4.3.2.6 Mapping of Parameters of the Operation fallback

parameters of the technology independent operation 'fallback' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'fallback' specified in this docment	Qualifier of the parameters of the CMIP action 'fallback' specified in this docment
sessionId	sessionId	Action information, M
status	status	Action response, M

Table 7 Mapping of parameters of the operation fallback

4.3.2.7 Mapping of Parameters of the Operation abortSessionOperation

parameters of the technology independent operation 'abortSessionOperation' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'abortSessionOperation' specified in this docment	Qualifier of the parameters of the CMIP action 'abortSessionOperation' specified in this docment
sessionId	sessionId	Action information, M
status	status	Action response, M

Table 8 Mapping of parameters of the operation abortSessionOperation

4.3.2.8 Mapping of Parameters of the Operation getSessionIds

parameters of the technology independent operation 'getSessionIds' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'getSessionIds' specified in this docment	Qualifier of the parameters of the CMIP action 'getSessionIds' specified in this docment
sessionIdList	sessionIdList	Action response, M
status	status	Action response, M

Table 9 Mapping of parameters of the operation getSessionIds

4.3.2.9 Mapping of Parameters of the Operation getSessionStatus

parameters of the technology independent operation 'getSessionStatus' defined in the 3GPP TS 32.~~602~~ 2612	parameters of the CMIP action 'getSessionStatuss' specified in this docment	Qualifier of the parameters of the CMIP action 'getSessionStatus' specified in this docment
sessionIdList	sessionIdList	Action information, M
sessionState	sessionState	Action response, M
status	status	Action response, M

Table 10 Mapping of parameters of the operation getSessionStatus

4.3.2.10 Mapping of Parameters of the Operation getSessionLog

parameters of the technology independent operation 'getSessionLog' defined in the 3GPP TS 32.~~602-2~~612	parameters of the CMIP action 'getSessionLog' specified in this docment	Qualifier of the parameters of the CMIP action 'getSessionLog' specified in this docment
sessionIdList	sessionIdList	Action information, M
logFileReference	logFileReference	Action information, M
contentType	contentType	Action information, M
status	status	Action response, M

Table 11 Mapping of parameters of the operation getSessionLog

4.3.2.11 Mapping of Parameters of the Operation getBulkCmIRPVersion

parameters of the technology independent operation 'getBulkCmIRPVersion' defined in the 3GPP TS 32.~~602-2~~612	parameters of the CMIP action 'getBulkCmIRPVersion' specified in this docment	Qualifier of the parameters of the CMIP action 'getBulkCmIRPVersion' specified in this docment
sessionIdList	sessionIdList	Action information, M
status	status	Action response, M

Table 12 Mapping of parameters of the operation getBulkCmIRPVersion

4.3.3 Mapping of Notifications

The table below shows the mapping relation between the technology independent notifications defined in 3GPP TS 32.~~602-2~~612 and the CMIP notifications specified in this document.

technology independent notifications defined in 3GPP TS 32.~~602-2~~612	CMIP notifications specified in this document	Qualifiers of the CMIP notifications specified in this document
notifySessionStateChanged	sessionStateChanged	M
notifyGetSessionLogEnded	getSessionLogEnded	M

Table 13 Mapping of Notifications

4.3.4 Mapping of Notification Parameters/Attributes

The following sub-clauses map the parameters/attributes of each technology independent notifications defined in the 3GPP TS 32.~~602-2~~612 to the parameters/attributes of the corresponding CMIP notifications specified in this document.

4.2.4.1 Mapping of Parameters/Attributes of the Notification sessionStateChanged

technology independent Parameters/Attributes of the notification 'notifySessionStateChanged' defined in 3GPP TS 32.~~602-2~~612	Parameters/Attributes of the CMIP notification 'sessionStateChanged' specified in this document	Qualifiers of the Parameters/Attributes of the CMIP notification 'sessionStateChanged' specified in this document
managedObjectClass	managedObjectClass	O
managedObjectInstance	managedObjectInstance	O

~~noficiationId~~notificationId	~~notificationId~~notificationIdentifier (Rec. X.721 1992E)	O
eventTime	eventTime	M
systemDN	Not used in this CMIP SS	
eventType	eventType	M
sessionId	sessionId	M
sourceIndicator	sourceIndicator	O
sessionState	sessionState	M

Table 14 Mapping of parameters/attributes of the notification sessionStateChanged

4.2.4.2 Mapping of Parameters/Attributes of the Notification getSessionLogEnded

technology independent Parameters/Attributes of the notification 'notifySessionStateChanged' defined in 3GPP TS 32.~~602-2~~612	Parameters/Attributes of the CMIP notification 'sessionStateChanged' specified in this document	Qualifiers of the Parameters/Attributes of the CMIP notification 'sessionStateChanged' specified in this document
managedObjectClass	managedObjectClass	O
managedObjectInstance	managedObjectInstance	O
~~noficiationId~~notificationId	~~notificationId~~notificationIdentifier (Rec. X.721 1992E)	O
eventTime	eventTime	M
systemDN	Not used in this CMIP SS	
eventType	eventType	M
sessionId	sessionId	M
sourceIndicator	sourceIndicator	O
sessionLogStatus	sessionLogStatus	M

Table 15 Mapping of Parameters/Attributes of the Notification getSessionLogEnded

5 GDMO definitions

5.1 Actions

5.1.1 startSession (M)

startSession **ACTION**
BEHAVIOUR
startSessionBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Common;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 1};

startSessionBehaviour **BEHAVIOUR**

DEFINED AS

”A Manager invokes this operation to start a session state machine as defined in 3GPP TS 32.~~602-2~~612 and initialise temporary entities to be related with bulk data configuration sessionId in an Agent.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies the new session and process to be associated with a bulk data operation e.g. upload or download.

The ‘Action response’ is composed of the following data:

- *status*

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

5.1.2 endSession (M)

endSession **ACTION**
BEHAVIOUR
endSessionBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Common;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 2};

endSessionBehaviour **BEHAVIOUR**

DEFINED AS

“A Manager invokes this operation to end a session state machine as defined in 3GPP TS32.~~602-2~~612 and delete all temporary entities and their related bulk data configuration for a specified sessionId in an Agent. The deletion

will be rejected if the configuration state is in a working state: e.g. uploading (including getting a log), downloading or activating.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download.

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

- *status*

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

5.1.3 upload (M)

upload **ACTION**
BEHAVIOUR
uploadBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Upload;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 3};

uploadBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to create a file containing bulk configuration data (as defined in 3GPP TS 32.61~~02~~-5 and in Claus 8 of the 3GPP TS 32.~~602-2~~612) and transfer the file to the indicated globally unique data file reference.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with the requested bulk data upload.

- *uploadDataFileReference*

  This mandatory parameter specifies a globally unique file reference to where the specified scope of bulk data is to be uploaded and stored.

- *baseObjectInstance*

  This mandatory parameter specifies a MO where the search starts. This is a full Distinguished Name.

- *scope*

  This mandatory parameter defines how many levels of the containment hierarchy to search (i.e. apply the filter defined below). The search starts from the MO given by the baseObjectInstance parameter. The levels of search that may be performed are:

  1. the base object alone (default);
  2. the n-th level subordinates of the base object;
  3. the base object and all of its subordinates down to and including the n-th level;

4. the base object and all of its subordinates.

- *filter*

  This mandatory parameter defines a filter test to be applied to the scoped Managed Object(s). If the filter is empty, all of the managed objects included by the scope are selected.

The ‘Action response’ is composed of the following data:

- *status*

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

5.1.4 download (M)

download **ACTION**
BEHAVIOUR
downloadBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Download;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 4};

downloadBehaviour **BEHAVIOUR**

DEFINED AS

“A Manager invokes this operation to request an Agent to activate previously downloaded bulk configuration data (as defined in 3GPP TS 32.6102-5 and in Claus 8 of the 3GPP TS 32.~~602-2~~612). Activate means that operations specified in a previously downloaded configuration file, for example create, delete and modify of managed objects are carried out on the live network i.e. mobile subscribers are affected by the downloaded configuration.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with the requested bulk data download.

- *downloadDataFileReference*

  This mandatory parameter identifies specifies a globally unique file reference from where the data to be fetched and download from.

The ‘Action response’ is composed of the following data:

- *status*

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

5.1.5 activate (M)

activate **ACTION**
BEHAVIOUR
activateBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX

TS32-~~602~~-614TypeModule.Activate;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 5};

activateBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to activate previously downloaded bulk configuration data (as defined in 3GPP TS 32.~~602-5~~615 and in Claus 8 of the 3GPP TS 32.~~602-2~~612). Activate means that operations specified in a previously downloaded configuration file, for example create, delete and modify of managed objects are carried out on the live network i.e. mobile subscribers are affected by the downloaded configuration.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data download that is required to be activated.

- *saveFallback*

  This mandatory parameter indicates whether or not it is required to initialise and enable fallback option prior to the activation.

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

- *status*

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

5.1.6 fallback (M)

fallback **ACTION**
BEHAVIOUR
fallbackBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.common;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.commonReply;
REGISTERED AS {ts32-~~602~~-614Action 6};

fallbackBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to activate a fallback area if a previously ordered activation has failed.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current log is required.

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

- *status*

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

5.1.7 abortSessionOperation (M)

abortSessionOperation **ACTION**
BEHAVIOUR
abortSessionOperationBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Common;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 7};

abortSessionOperationBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to abort a currently activate asynchronus operation. The abort will cause the session state machine to exit the current state and enter a new state, see Claus 7 of 3GPP TS 32.~~602-2~~612.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the abort is required.

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

- *status*

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

5.1.8 getSessionIds (M)

getSessionId **ACTION**
BEHAVIOUR
getSessionIdBehaviour;
MODE
CONFIRMED;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.GetSessionIdsReply;
REGISTERED AS {ts32-~~602~~-614Action 8};

getSessionIdBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to return a list of all its currently open sessionIds.

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

- *sessionIdList*

  This mandatory parameter is a list of all the sessionID an Agent currently has open i.e. started with startSession and not ended with endSession operations.

- *status*

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

5.1.9 getSessionStatus (M)

getSessionStatus **ACTION**
BEHAVIOUR
getSessionStatusBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.Common;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.GetSessionStatusReply;
REGISTERED AS {ts32-~~602~~-614Action 9};

getSessionStatusBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to send the current state of the bulk data configuration file operation. The IRPAgent returns the current state. See Claus 7 of 3GPP TS 32.~~602-2~~612.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current status is required.

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

- *sessionState*

  This mandatory parameter indicates current state of the configuration file operation. See Claus 7 of 3GPP TS 32.~~602-2~~612.

- *status*

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

5.1.10 getSessionLog (M)

getSessionLog **ACTION**
BEHAVIOUR
getSessionLogBehaviour;
MODE
CONFIRMED;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.GetSessionLog;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.CommonReply;
REGISTERED AS {ts32-~~602~~-614Action 10};

getSessionLogBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation to request an Agent to provide a log of the results from activities associated with bulk data configuration file sessionId operations.

The 'Action information' contains the following data:

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current log is required.

- *logFileReference*

  This mandatory parameter specifies the address and file name where the result is to be placed in the Manager.

- *contentType*

  This mandatory parameter identifies if retrieved file should include (1) complete log including errors, (2) only errors.

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

- *status*

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

5.1.11 getBulkCmIRPVersion (M)

getBulkCmIRPVersion **ACTION**
BEHAVIOUR
getBulkCmIRPVersionBehaviour;
MODE
CONFIRMED;
WITH REPLY SYNTAX
TS32-~~602~~-614TypeModule.GetBulkCmIRPVersionReply;
REGISTERED AS {ts32-~~602~~-614Action 11};

getBulkCmIRPVersionBehaviour **BEHAVIOUR**

DEFINED AS

"A Manager invokes this operation when it wishes to find out the Bulk CM IRP SS versions supported by an Agent. The Agent shall respond with a list of supported Bulk CM IRP SS versions.

- *sessionIdList*

  This mandatory parameter is a list of all the sessionID an Agent currently has open i.e. started with startSession and not ended with endSession operations.

- *status*

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

5.2 Notifications

5.2.1 sessionStateChanged (M)

sessionStateChanged **NOTIFICATION**
BEHAVIOUR
sessionStateChangedBehaviour;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.SessionStateChangedInfo
AND ATTRIBUTE IDS

~~notificationId~~notificationIdentifier ~~notificationId~~"Recommandation X.721 1992E" : notificationIdentifier,
sessionId sessionId,
sourceIndicator "Recommandation X.721 1992E" : sourceIndicator,
sessionState sessionState;
REGISTERED AS {ts32-~~602~~-614Notification 1};

sessionStateChangedBehaviour **BEHAVIOUR**
DEFINED AS

"An Agent notifies a Manager that a state change has occurred on a bulk data configuration file sessionID operation subscribed to by the IRPManager.

The 'Event Information' field contains the following data:

- *notificationIdentifier*

This ITU-T X.721 standardised parameter, together with MOI (Managed Object Instance), unambiguously identifies this notification.

- *sessionId*

This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current status is required.

- *sourceIndicator*

This optional when present, indicates the source of the operation that led to the generation of this notification. It can have one of the following values:

1 resource operation: The notification was generated in response to an internal operation of the resource;
2 management operation: The notification was generated in response to a management operation applied across the managed object boundary external to the managed object;
3 unknown: It is not possible to determine the source of the operation. parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current status is required.

- *sessionState*

This mandatory parameter indicates state transition that caused the Notification. See Subclaus 7.2 of 3GPP TS 32.~~602-2~~612.";

5.2.2 getSessionLogEnded (M)

getSessionLogEnded **NOTIFICATION**
BEHAVIOUR
getSessionLogEndedBehaviour;
WITH INFORMATION SYNTAX
TS32-~~602~~-614TypeModule.GetSessionLogEndedInfo
AND ATTRIBUTE IDS
~~notificationId~~notificationIdentifier ~~notificationId~~"Recommandation X.721 1992E" : notificationIdentifier,
sessionId sessionId,
sourceIndicator "Recommandation X.721 1992E" : sourceIndicator,
sessionLogStatus sessionLogStatus;
REGISTERED AS {ts32-~~602~~-614Notification 2};

getSessionLogEndedBehaviour~~sessionStateChangedBehaviour~~ **BEHAVIOUR**
DEFINED AS

" An Agent notifies a Manager that a requested GetSessionLog for a bulk data configuration file sessionId operation subscribed to by the Manager has ended successfully or unsuccessfully.

The 'Event Information' field contains the following data:

- *notificationIdentifier*

  This ITU-T X.721 standardised parameter, together with MOI (Managed Object Instance), unambiguously identifies this notification.

- *sessionId*

  This mandatory parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current status is required.

- *sourceIndicator*

  This optional when present, indicates the source of the operation that led to the generation of this notification. It can have one of the following values:
  1 resource operation: The notification was generated in response to an internal operation of the resource;
  2 management operation: The notification was generated in response to a management operation applied across the managed object boundary external to the managed object;
  3 unknown: It is not possible to determine the source of the operation. parameter identifies this specific session and process associated with an earlier bulk data operation e.g. upload or download for which the current status is required.

- sessionLogStatus

  This mandatory parameter indicates event that caused the Notification i.e. Get log completed, Get Log Failed.";

5.3 Attributes

5.3.1 sessionId

sessionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-614TypeModule.SessionId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    sessionIdBehaviour;
REGISTERED AS {ts32-614Attribute 1};

sessionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a specific session."

5.3.2 sessionState

sessionState ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-614TypeModule.SessionState;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    sessionStateBehaviour;
REGISTERED AS {ts32-614Attribute 2};

sessionStateBehaviour BEHAVIOUR
DEFINED AS
" This attribute indicates state transition. See Subclaus 7.2 of 3GPP TS 32.612."

5.3.3 sessionLogStatus

sessionLogStatus ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-614TypeModule.SessionLogStatus;
MATCHES FOR EQUALITY;
BEHAVIOUR
sessionLogStatusBehaviour;
REGISTERED AS {ts32-614Attribute 3};

sessionLogStatusBehaviour BEHAVIOUR
DEFINED AS
"This attribute indicates event that caused a getSessionLogEnded Notification, i.e. Get log completed, Get Log Failed.

6 ASN.1 definitions

```
TS32-602-614TypeModule  {-ccitt (0) identified-organization (4) etsi (0)
        mobileDomain (0) umts-Operation-Maintenance (3) ts-32-602-614 (61402)
          informationModel (0) asn1Module (2) version1 (1)}

    DEFINITIONS IMPLICIT TAGS ::=
    BEGIN

    --EXPORTS everything
    IMPORTS
    NotificationIdentifier, SourceIndicator
    FROM Attribute-ASN1Module {joint-iso-ccitt ms(9) smi(3) part2(2) asn1Module(2) 1}
    CMISFilter, ObjectInstance, Scope
    FROM CMIP-1 {joint-iso-ccitt ms(9) cmip(1) modules(0) protocol(3)};

    -- 3GPP TS 32.614 related Object Identifiers


    baseNodeUMTS  OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
                        umts-Operation-Maintenance(3)}
    ts32-614   OBJECT IDENTIFIER ::= { baseNodeUMTS ts32-614(614)}
    ts32-614InfoModel   OBJECT IDENTIFIER ::= { ts32-614 informationModel(0)}
    baseNode3gpp                    OBJECT IDENTIFIER ::= {baseNode (1)} --to be defined
    ts32-602                OBJECT IDENTIFIER ::= { baseNode3gpp ts32-602 (10)}

    ts32-614ObjectClass   OBJECT IDENTIFIER ::= { ts32-614InfoModel managedObjectClass(3)}
    ts32-614Package       OBJECT IDENTIFIER ::= { ts32-614InfoModel package(4)}
    ts32-614Parameter     OBJECT IDENTIFIER ::= { ts32-614InfoModel parameter(5)}
    ts32-614NameBinding   OBJECT IDENTIFIER ::= { ts32-614InfoModel nameBinding(6)}
    ts32-614Attribute       OBJECT IDENTIFIER ::= { ts32-614InfoModel attribute(7)}
    ts32-602-614Action              OBJECT IDENTIFIER ::= {ts32-602-614InfoModel action (9)}
    ts32-602-614Notification                OBJECT IDENTIFIER ::= {ts32-602-614InfoModel notification
(10)}

    -- Start of 3GPP SA5 own definitions

    ErrorCauses ::= ENUMERATED
        {
        noError (0),                    -- operation / notification successfully performed
        wrongSessionId (1),             -- the value of the parameter SessionId is not known for the Agent
        unspecifiedErrorReason (255)    -- operation failed, specific error unknown
        }

    ActivationMode ::= ENUMERATED
        {
        commandByCommand (0),           -- activation shall be done command by command
        bulk (1)                        -- activation shall be done en masse, bulk
        }

    SaveFallback ::= ENUMERATED
        {
        enable (0),                     -- enable the fallback option
        disable (1)                     -- disable the fallback option
        }
```

```
SessionId ::= GraphicString

SessionState ::= ENUMERATED
    {
    idle(0),
    uploadInProgress (1),
    uploadCompleted (2),
    uploadFailed (3),
    downloadInProgress (4),
    downloadCompleted (5),
    downloadFailed (6),
    activationInProgress (7),
    activationCompleted (8),
    activationFailed (9),
    activationPartlyRealised (10),
    fallbakInProgress (11),
    fallbackCompleted (12),
    fallbackFailed (13),
    fallbackPartlyRealised (14)
    }

SessionLogStatus ::= ENUMERATED
    {
    getLogFailed        (0),
    getLogCompleted     (1)
    }


ContentType ::= ENUMERATED
    {
    completeLog (0),                -- complete log including errors
    errorLog (1)                    -- only error log
}

FileReference ::= GraphicString

Common ::= SEQUENCE
    {
    sessionId           SessionIdGraphicString
    }

CommonReply ::= SEQUENCE
    {
    status              ErrorCauses
    }

Download ::= SEQUENCE
    {
    sessionId                       SessionIdGraphicString,
    downloadDataFileReference       FileReference
    }


Upload ::= SEQUENCE
    {
    sessionId                       SessionIdGraphicString,
    uploadDataFileReference         FileReference,
    baseObjectInstance              ObjectInstance,  -- ITU-T X.711
    scope                           Scope,     -- ITU-T X.711
    filter                          CMISFilter     -- ITU-T X.711
    }
```

```
Activate ::= SEQUENCE
    {
    sessionId           SessionIdGraphicString,

    saveFallback        SaveFallback,
    status              ErrorCauses
    }

GetSessionIdsReply ::= SEQUENCE
    {
    sessionIdList       SEQUENCE OF {sessionId SessionIdGraphicString},
    status              ErrorCauses
    }

GetSessionStatusReply ::= SEQUENCE
    {
    sessionState    SessionState,
    status          ErrorCauses
    }

GetSessionLog ::= SEQUENCE
    {
    sessionId           SessionIdGraphicString,
    logFileReference    FileReference,
    contentType         ContentType,
    status              ErrorCauses
    }

GetBulkCmIRPVersionReply ::= SEQUENCE
    {
    versionList             SEQUENCE OF {version GraphicString},
    status                  ErrorCauses
    }

--SessionStateChangedInfo ::= SEQUENCE
    {
    notificationIdnotificationIdentifier        NotificationIdentifier OPTIONAL,   --ITU-T X.721
    sessionId               SessionIdGraphicString,
    sourceIndicator         SourceIndicator,   -- ITU-T X.721
    sessionState            SessionState
    }

--GetSessionLogEndedInfo ::= SEQUENCE
    {
    notificationIdnotificationIdentifier        NotificationIdentifier OPTIONAL,   --ITU-T X.721
    sessionId               SessionIdGraphicString,
    sourceIndicator         SourceIndicator,   -- ITU-T X.721
    sessionLogStatussessionState            SessionLogStatusSessionState
    }


END -- of module TS32-602-614TypeModule
```

3GPP TSG-SA5 (Telecom Management) **S5-010574**
Meeting #22, Paris, France, 3-7 September 2001 **S5C010363**

CR-Form-v4

CHANGE REQUEST

⌘ **32.624** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change: ⌘

1. Change according to the new numbering of SA5 R4 documents
2. Making R4 independent of R99
3. Other editorial changes including error corrections in GDMO/ASN.1 codes.

Summary of change: ⌘

1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references.
2. Replacing GDMO references to R99 with real codes
3. Other editorial changes error correction including error corrections in GDMO/ASN.1 codes

Consequences if not approved: ⌘ The document would be inconsistent and unreadable.

Clauses affected: ⌘ Clause 4, Clause 5 and Clause 6

Other specs affected: ⌘
☐ Other core specifications ⌘
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Basic aspects

4.1 Explanation

A technology independent generic network resource model is defined in 3GPP TS 32.6220 2 for 3G networks. This document provides an implementation of this generic network resource model by using CMIP technology.

4.2 Allowed Alarms of MOCs

Table 1 defines the allowed alarms of each MOCs for this CMIP Solution Set. The MOCs, which do not appear in table 1, may not issue any alarm except the alarms that are defined as allowed for its super-classparent MOC(s) in the inheritance tree.

Table 1: Allowed alarms of MOCs

MOCs	Legal Alarms
sSubNetwork	EnvironmentalAlarm
mManagedElement	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
mManagementNode	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
mManagedFunction	communicationsAlarm processingErrorAlarm QualityofServiceAlarm
irpIRPAgent	communicationsAlarm processingErrorAlarm
AlarmIRPalarmControl (TS 32.111-4)	alarmListRebuiltAlarm

4.3 Mapping

The semantic of the Generic Network Resource Model is defined in 3GPP TS 32.620 2. 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 Generic Network Resource IRP.

4.3.1 Mapping of MOCs

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

Table 2: Mapping of MOCs

Managed Objects of the Generic NR IRP NRM	MOCs of this CMIP SS
ManagedElement	managedElement
SubNetwork	subNetwork
IRPAgent	irpAgent ~~(3GPP TS 32.106-7 : 6.2001)~~
ManagedFunction	managedFunction ~~(3GPP TS 32.106-7 : 6.2001)~~
ManagementNode	managementNode ~~(3GPP TS 32.106-7 : 6.2001)~~
MeContext	meContext ~~(3GPP TS 32.106-7 : 6.2001)~~
BasicCmIRP	bcmControl ~~(3GPP TS 32.106-7 : 6.2001)~~
VsDataContainer	vsDataContainer
BulkCmIRP	bulkCmControl

4.3.2 Mapping of Attributes

Table 3~~1~~: Mapping of Attributes

Attribute defined in 3GPP TS 32.62~~0-2~~	Attribute defined in this CMIP SS
dnPrefix	systemTitle (~~ITU-T~~ ITU-T Recommendation X.721: 1992)
managedElementId	managedElementId ~~(3GPP TS 32.106-7 : 6.200)~~
subNetworkId	subNetworkId ~~(3GPP TS 32.106-7 : 6.200)~~
irpAgentId	irpAgentId ~~(3GPP TS 32.106-7 : 6.2001)~~
locationName	locationName (ITU-T Recommendation M.3100: 1995)
managedBy	meManagedBy ~~(3GPP TS 32.106-7 : 6.2001)~~
managedElementType	managedElementType
managementNodeId	managementNodeId ~~(3GPP TS 32.106-7 : 6.2001)~~
manages	mnManagesList ~~(3GPP TS 32.106-7 : 6.2001)~~
meContextId	meContextId ~~(3GPP TS 32.106-7 : 6.2001)~~
systemDN	not needed
userDefinedState	userDefinedState ~~(3GPP TS 32.106-7 : 6.2001)~~
userLabel	userLabel (ITU-T Recommendation M.3100: 1995)
vendorName	vendorName (ITU-T Recommendation M.3100: 1995)
v~~V~~sDataContainerId	vsDataContainerId
v~~V~~sDataType	vsDataType
v~~V~~sData	vsData
vsDataFormatVersion	vsDataFormatVersion
b~~B~~ulkCmIrpId	bulkCmControlId
i~~I~~rpVersion	irpVersion
userDefinedNetworkType	userDefinedNetworkType
s~~S~~wVersion	swVersion

5 GDMO Definitions

5.1 Managed Object Classes

5.1.1 subNetwork

subNetwork MANAGED OBJECT CLASS
  DERIVED FROM "Recommendation X.721: 1992":top;
  CHARACTERIZED BY
    subNetworkBasicPackage;
  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 {ts32-620-624ObjectClass 1};
```

5.1.2 managedElement

```
managedElement MANAGED OBJECT CLASS
  DERIVED FROM      "Recommendation X.721: 1992":top;
  CHARACTERIZED BY
    managedElementBasicPackage,
    managedElementAssociationPackage;
  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.",
    "3GPP TS 32.106-7: 6.2001":communicationsAlarmPackage  PRESENT IF
      "the communicationsAlarm notifications defined in Recommendation X.721
       are supported by an instance of this class.",
    "3GPP TS 32.106-7: 6.2001":equipmentAlarmPackage  PRESENT IF
      "the equipmentAlarm notifications defined in Recommendation X.721
       are supported by an instance of this class.";
REGISTERED AS {ts32-620-624ObjectClass 2};
```

5.1.3 managementNode

```
managementNode MANAGED OBJECT CLASS
  DERIVED FROM      "Recommendation X.721: 1992":top;
  CHARACTERIZED BY
    managementNodeBasicPackage,
    "3GPP TS 32.106-7:  6.2001":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.",
~~"3GPP TS 32.106-7: 6.2001":~~ communicationsAlarmPackage PRESENT IF
"the communicationsAlarm notifications defined in Recommendation X.721
are supported by an instance of this class.",
~~"3GPP TS 32.106-7: 6.2001":~~ equipmentAlarmPackage PRESENT IF
"the equipmentAlarm notifications defined in Recommendation X.721
are supported by an instance of this class.";
REGISTERED AS {ts32~~-620~~-624ObjectClass 3};

5.1.4 vsDataContainer

vsDataContainer MANAGED OBJECT CLASS
DERIVED FROM "Recommendation X.721: 1992":top;
CHARACTERIZED BY
vsDataContainerBasicPackage;
REGISTERED AS {ts32~~-620~~-624ObjectClass 4};

5.1.5 bulkCmControl

bulkCmControl MANAGED OBJECT CLASS
DERIVED FROM "Recommendation X.721: 1992":top;
CHARACTERIZED BY
bulkCmControlBasicPackage,
bulkCmControlActionPackage,
bulkCmControlNotificationPackage;
REGISTERED AS {ts32~~-620~~-624ObjectClass 5};

5.1.6 irpAgent

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 {ts32-624ObjectClass 6};

5.1.7 managedFunction

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 {ts32-624ObjectClass 7};

5.1.8 meContext

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 {ts32-624ObjectClass 8};

5.1.9 bcmControl

bcmControl MANAGED OBJECT CLASS
DERIVED FROM "Recommendation X.721: 1992":top;
CHARACTERIZED BY
bcmControlBasicPackage,

bcmIRPVersionPackage;
REGISTERED AS {ts32-624ObjectClass 9};

5.2 Packages

5.2.1 subNetworkBasicPackage

subNetworkBasicPackage PACKAGE
BEHAVIOUR
subNetworkBasicPackageBehaviour;
ATTRIBUTES
subNetworkId GET,
"Recommendation X.721: 1992": systemTitle GET,
"Recommendation M.3100: 1995"-: userLabel GET-REPLACE,
userDefinedNetworkType GET;
REGISTERED AS {ts32-620-624Package 1};

subNetworkBasicPackageBehaviour 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.";

5.2.2 managedElementBasicPackage

managedElementBasicPackage PACKAGE
BEHAVIOUR
managedElementBasicPackageBehaviour;
ATTRIBUTES
"3GPP TS 32.106-7: 6.2001": managedElementId GET,
managedElementType GET,
"3GPP TS 32.106-7: 6.2001": userDefinedState GET-REPLACE,
"Recommendation X.721: 1992" : systemTitle GET,
"Recommendation M.3100: 1995" : userLabel GET-REPLACE,
"Recommendation M.3100: 1995" : vendorName GET,
"Recommendation M.3100: 1995" : locationName GET,
swVersion GET;
REGISTERED AS {ts32-620-624Package 2};

managedElementBasicPackageBehaviour 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'.";

5.2.3 managedElementAssociationPackage

managedElementAssociationPackage PACKAGE
BEHAVIOUR
managedElementAssociationPackageBehaviour;
ATTRIBUTES
~~"3GPP TS 32.106-7: 6.2001":~~ meManagedBy GET;
REGISTERED AS {ts32~~-620~~-624Package 3};

managedElementAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"The attribute 'meManagedBy' points to the mg~~3M~~anagmentNode instance which manages this mg~~3M~~anagedElement instance. It implements the attribute *managedBy* of MOC ~~G3~~ManagedElement defined in TS32.622~~106-5~~.";

5.2.4 vsDataContainerBasicPackage

vsDataContainerBasicPackage PACKAGE
BEHAVIOUR
vsDataContainerBasicPackageBehaviour;
ATTRIBUTES
vsDataContainerId GET,
vsDataType GET,
vsData GET-REPLACE,
vsDataFormatVersion GET;
REGISTERED AS {ts32~~-620~~-624Package 4};

vsDataContainerBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"The 'VsDataContainer' managed object is a container for vendor specific data. The number of instances of the 'VsDataContainer' can differ from vendor to vendor. This MOC shall only be used by the Bulk CM IRP for the UTRAN and GERAN object models.";

5.2.5 bulkCmControlBasicPackage

bulkCmControlBasicPackage PACKAGE
BEHAVIOUR
bulkCmControlBasicPackageBehaviour;
ATTRIBUTES
bulkCmControlId GET,
irpVersion GET;
REGISTERED AS {ts32~~-620~~-624Package 5};

bulkCmControlBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"This Managed Object Class represents the Bulk CM IRP capability associated with each IRPAgent. Restriction in Rel-4: Number of instances = 0..1.";

5.2.6 bulkCmControlActionPackage

bulkCmControlActionPackage PACKAGE
BEHAVIOUR
bulkCmControlActionPackageBehaviour;
ACTIONS
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": startSession,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": endSession,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": upload,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": download,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": activate,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": fallback,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": abortSessionOperation,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": getSessionIds,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": getSessionStatus,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": getSessionLog,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": getBulkCmIrpVersion;
REGISTERED AS {ts32~~-620~~-624Package 6};

bulkCmControlActionPackageBehaviour BEHAVIOUR
DEFINED AS
"This package specifies all actions a bulkCmControl shall provide.";

5.2.7 bulkCmControlNotificationPackage

bulkCmControlNotificationPackage PACKAGE
BEHAVIOUR
bulkCmControlNotificationPackageBehaviour;
NOTIFICATIONS
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": sessionStateChanged,
"3GPP TS 32.~~602-4: 6.2001~~614 Release 4": getSessionLogEnded;
REGISTERED AS {ts32~~-620~~-624Package 7};

bulkCmControlNotificationPackageBehaviour~~**bulkCmControlBasicPackageBehaviour**~~ BEHAVIOUR
DEFINED AS
"This package specifies all notifications a bulkCmControl shall provide.";

5.2.8 managementNodeBasicPackage

~~**managedFunctionBasicPackage** PACKAGE~~
~~BEHAVIOUR~~

~~managementFunctionBasicPackageBehaviour;~~
~~ATTRIBUTES~~
~~"Recommendation M.3100: 1995" : userLabel GET-REPLACE,~~
managementNodeBasicPackage PACKAGE
ATTRIBUTES
managementNodeId GET,
userDefinedState GET,
"Recommendation M.3100: 1995" : userLabel GET,
"Recommendation M.3100: 1995" : vendorName GET,
"Recommendation M.3100: 1995" : locationName GET;
swVersion: GET;
REGISTERED AS {ts32-~~620~~-624Package 8};

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.";

5.2.9 managementNodeAssociationPackage

managementNodeAssociationPackage PACKAGE
BEHAVIOUR
managementNodeAssociationPackageBehaviour;
ATTRIBUTES
mnManagesList GET;
REGISTERED AS {ts32-624Package 9};

managementNodeAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"The attribute 'mnManagesList' points to all managedElement instances which this managementNode instance manages. It implements the attribute *manages* of MOC ManagementNode defined in TS32.622.";

5.2.10 irpAgentBasicPackage

irpAgentBasicPackage PACKAGE
BEHAVIOUR
irpAgentBasicPackageBehaviour;
ATTRIBUTES
irpAgentId GET,
"Recommendation M.3100: 1995" : userLabel GET,
supportedIRPs GET;
REGISTERED AS {ts32-624Package 10};

irpAgentBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"irpAgent may have only one instance in R99 and R4. The instance of this MOC represents the behavior of an IRP Agent which implements one or more IRPs";

5.2.11 managedFunctionBasicPackage

managedFunctionBasicPackage PACKAGE
BEHAVIOUR
managementFunctionBasicPackageBehaviour;
ATTRIBUTES
"Recommendation M.3100: 1995" : userLabel GET;
REGISTERED AS {ts32-624Package 11};

managedFunctionBasicPackageBehaviour 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.";

5.2.12 meContextBasicPackage

meContextBasicPackage PACKAGE
BEHAVIOUR
meContextBasicPackageBehaviour;
ATTRIBUTES
meContextId GET,
"Recommendation X.721: 1992" : systemTitle GET;
REGISTERED AS {ts32-624Package 12};

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.";

5.2.13 bcmControlBasicPackage

bcmControlBasicPackage PACKAGE
BEHAVIOUR
bcmControlBasicPackageBehaviour;
ATTRIBUTES
bcmControlId GET;
REGISTERED AS {ts32-624Package 13};

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'.";

5.2.14 bcmIRPVersionPackage

bcmIRPVersionPackage PACKAGE
BEHAVIOUR
bcmIRPVersionPackageBehaviour;
ATTRIBUTES
supportedBcmIRPVersions GET;
ACTIONS
getBcmIRPVersion;
REGISTERED AS {ts32-624Package 14};

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.";

5.2.15 communicationsAlarmPackage

communicationsAlarmPackage PACKAGE
NOTIFICATIONS
"Recommendation X.721:1992": communicationsAlarm;
REGISTERED AS {ts32-624Package 15};

5.2.16 equipmentAlarmPackage

equipmentAlarmPackage PACKAGE
NOTIFICATIONS
"Recommendation X.721:1992": equipmentAlarm;
REGISTERED AS {ts32-624Package 16};

5.2.17 qualityOfServiceAlarmPackage

qualityOfServiceAlarmPackage PACKAGE
NOTIFICATIONS
"Recommendation X.721:1992": qualityofServiceAlarm;
REGISTERED AS {ts32-624Package 17};

5.3 Attributes

5.3.1 managedElementType

managedElementType ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~620~~-624TypeModule .ManagedElementType;
MATCHES FOR EQUALITY;
BEHAVIOUR
managedElementTypeBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 1};

managedElementTypeBehaviour BEHAVIOUR
DEFINED AS
"This attribute specifies which managed functions a managed element contains.";

5.3.2 subNetworkId

subNetworkId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~-~~624~~106 7~~TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
subNetworkIdBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 2};

subNetworkIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies a subNetwork instance.";

5.3.2 vsDataContainerId

vsDataContainerId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~-~~624~~106-7~~TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
vsDataContainerIdBehaviour;
REGISTERED AS {ts32-~~620-~~624Attribute 2};

vsDataContainerIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies a vsDataContainer instance.";

5.3.3 vsDataType

vsDataType ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~620-~~624TypeModule.VsDataType;
MATCHES FOR EQUALITY;
BEHAVIOUR
vsDataTypeBehaviour;
REGISTERED AS {ts32-~~620-~~624Attribute 3};

vsDataTypeBehaviour BEHAVIOUR
DEFINED AS
"Type of vendor specific data contained by this instance, e.g. relation specific algorithem parameters, cell specific parameters for pewer control or re-selection or a timer. The type itself is also vendor specific.”;

5.3.4 vsData

vsData ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~620-~~624TypeModule.VsData;
MATCHES FOR EQUALITY;
BEHAVIOUR
vsDataBehaviour;
REGISTERED AS {ts32-~~620-~~624Attribute 4};

vsDataBehaviour BEHAVIOUR
DEFINED AS
"Vendor specific attributes of the type vsDataType. The attribute definitions including constraints (value ranges, data types, etc.) are specified in a vendor specific data format file.”;

5.3.5 vsDataFormatVersion

vsDataFormatVersion ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-~~620~~-624TypeModule.VsDataFormatVersion;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    vsDataFormatVersionBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 5};

vsDataFormatVersionBehaviour BEHAVIOUR
  DEFINED AS
    "Name of the data format file, including version.";

5.3.6 bulkCmControlId

bulkCmControlId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-~~-~~624~~106-7~~TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    bulkCmControlIdBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 6};

bulkCmControlIdBehaviour BEHAVIOUR
  DEFINED AS
    "This attribute identifies a bulkCmControl instance.";

5.3.7 irpVersion

irpVersion ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-~~620~~-624TypeModule.IrpVersion;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    irpVersionBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 7};

irpVersionBehaviour BEHAVIOUR
  DEFINED AS
    "One or more Bulk CM IRP version entries.";

5.3.8 userDefinedNetworkType

userDefinedNetworkType ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-~~620~~-624TypeModule.UserDefinedNetworkType;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    userDefinedNetworkTypeBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 8};

userDefinedNetworkTypeBehaviour BEHAVIOUR
DEFINED AS
"Textual information regarding the type of network, e.g. UTRAN.";

5.3.9 swVersion

swVersion ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-~~620~~-624TypeModule.SwVersion;
MATCHES FOR EQUALITY;
BEHAVIOUR
swVersionBehaviour;
REGISTERED AS {ts32-~~620~~-624Attribute 9};

swVersionBehaviour BEHAVIOUR
DEFINED AS
"The software version of the managed element (this is used for determin which version of the vendor specific information that is valid for the managed element).";

5.3.10 managedElementId

managedElementId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule .GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
managedElementIdBehaviour;
REGISTERED AS {ts32-624Attribute 10};

managedElementIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the '3gManagedElement' object class.";

5.3.11 userDefinedState

userDefinedState ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.UserDefinedState;
MATCHES FOR EQUALITY;
BEHAVIOUR
userDefinedStateBehaviour;
REGISTERED AS {ts32-624Attribute 11};

userDefinedStateBehaviour BEHAVIOUR
DEFINED AS
"This attribute specifies an operator defined state for operator specific usage.";

5.3.12 meManagedBy

meManagedBy ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectPointer;
MATCHES FOR EQUALITY;
BEHAVIOUR
meManagedByBehaviour;
REGISTERED AS {ts32-624Attribute 12};

meManagedByBehaviour BEHAVIOUR
DEFINED AS
"This attribute points to the managementNode instance which manages the related 3gManagedElement instance.";

5.3.13 managementNodeId

managementNodeId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
managmentNodeIdBehaviour;
REGISTERED AS {ts32-624Attribute 13};

managmentNodeIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'managmentNode' object class.";

5.3.14 mnManagesList

mnManagesList ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectPointerList;
MATCHES FOR EQUALITY;
BEHAVIOUR
mnManagesListBehaviour;
REGISTERED AS {ts32-624Attribute 14};

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

5.3.15 irpAgentId

irpAgentId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;

BEHAVIOUR
irpAgentIdBehaviour;
REGISTERED AS {ts32-624 Attribute 15};

irpAgentIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies an irpAgent instance.";

5.3.16 supportedIRPs

supportedIRPs ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.SupportedIRPs;
MATCHES FOR EQUALITY;
BEHAVIOUR
supportedIRPsBehaviour;
REGISTERED AS {ts32-624Attribute 16};

supportedIRPsBehaviour BEHAVIOUR
DEFINED AS
"This attribute provides the information about IRPs an IRPAgent supports.";

5.3.17 meContextId

meContextId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
meContextIdBehaviour;
REGISTERED AS {ts32-624Attribute 17};

meContextIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'MEContext' object class.";

5.3.18 bcmControlId

bcmControlId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bcmControlIdBehaviour;
REGISTERED AS {ts32-624Attribute 18};

bcmControlIdBehaviour BEHAVIOUR
DEFINED AS

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

5.3.19 supportedBcmIRPVersions

supportedBcmIRPVersions ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.SupportedBCmIRPVersions;
MATCHES FOR EQUALITY;
BEHAVIOUR
supportedBCmIRPVersionsBehaviour;
REGISTERED AS {ts32-624Attribute 19};

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

5.4 Actions

5.4.1 getBcmIRPVersion

getBcmIRPVersion ACTION
BEHAVIOUR
getBcmIRPVersionBehaviour;
MODE CONFIRMED;
WITH REPLY SYNTAX TS32-624TypeModule.GetBCmIRPVersionReply;
REGISTERED AS {ts32-624Action 1};

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).";

5.54 Name Binding

5.54.1 managedElement - meContext

managedElement-meContext NAME BINDING

SUBORDINATE OBJECT CLASS managedElement;
NAMED BY SUPERIOR OBJECT CLASS ~~"3GPP TS 32.106-7: 6.2001":~~ meContext;
WITH ATTRIBUTE managedElementId;
BEHAVIOUR
managedElement-meContextBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32~~-620~~-624NameBinding 1};

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

5.5~~4~~.2 managedElement - subNetwork

managedElement-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS managedElement;
NAMED BY SUPERIOR OBJECT CLASS subNetwork;
WITH ATTRIBUTE managedElementId;
BEHAVIOUR
managedElement-subNetworkBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32~~-620~~-624NameBinding 2};

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

5.5~~4~~.3 meContext - subNetwork

meContext-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS meContext;
NAMED BY SUPERIOR OBJECT CLASS subNetwork;
WITH ATTRIBUTE meContextId;
BEHAVIOUR
meContext-subNetworkBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32~~-620~~-624NameBinding 3};

meContext-subNetworkBehaviour BEHAVIOUR
DEFINED AS

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

5.5.44.3 bulkCmControl - irpAgent

bulkCmControl-irpAgent NAME BINDING
SUBORDINATE OBJECT CLASS bulkCmControl;
NAMED BY SUPERIOR OBJECT CLASS ~~"3GPP TS 32.106-7: 6.2001":~~ irpAgent;
WITH ATTRIBUTE bulkCmControlId~~managedElementId~~;
BEHAVIOUR
bulkCmControl-irpAgentBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-~~620~~-624NameBinding ~~43~~};

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

~~## 5.3.4 vsDataContainer - vsDataContainer~~

~~**vsDataContainer-vsDataContainer** NAME BINDING~~
~~SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.2001": vsDataContainer;~~
~~NAMED BY SUPERIOR OBJECT CLASS "3GPP TS 32.620-4: 06.2001": vsDataContainer;~~
~~WITH ATTRIBUTE vsDataContainerId;~~
~~BEHAVIOUR~~
~~vsDataContainer-vsDataContainerBehaviour;~~
~~CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;~~
~~DELETE ONLY-IF-NO-CONTAINED-OBJECTS;~~
~~REGISTERED AS {ts32-620NameBinding 4};~~

~~**vsDataContainer-vsDataContainerBehaviour** BEHAVIOUR~~
~~DEFINED AS~~
~~"The name binding represents a relationship in which a vsDataContainer contains and controls another 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.";~~

~~## 5.4.5 meContext - subNetwork~~

~~**meContext-subNetwork** NAME BINDING~~
~~SUBORDINATE OBJECT CLASS meContext;~~
~~NAMED BY SUPERIOR OBJECT CLASS subNetwork;~~
~~WITH ATTRIBUTE meContextId;~~
~~BEHAVIOUR~~

~~meContext-subNetworkBehaviour;~~
~~CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;~~
~~DELETE ONLY-IF-NO-CONTAINED-OBJECTS;~~
~~REGISTERED AS {ts32-620NameBinding 5};~~

~~**meContext-subNetworkBehaviour** BEHAVIOUR~~
~~DEFINED AS~~
~~"The name binding represents a relationship in which a subNetwork contains and~~
~~controls a meContext. When automatic instance naming is used, the choice~~
~~of name bindings left as a local matter.";~~

5.5.5 irpAgent - subNetwork

irpAgent-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS irpAgent;
NAMED BY SUPERIOR OBJECT CLASS subNetwork;
WITH ATTRIBUTE irpAgentId;
BEHAVIOUR
irpAgent-subNetworkBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 5};

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

5.5.64.6 irpAgent - managementNode

irpAgent - managementNode NAME BINDING
SUBORDINATE OBJECT CLASS ~~"3GPP TS 32.106-7: 6.2001":~~ irpAgent;
NAMED BY SUPERIOR OBJECT CLASS managementNode;
WITH ATTRIBUTE "3GPP TS 32.106-7: 6.2001": irpAgentId;
BEHAVIOUR
irpAgent-managementNodeBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-~~620~~-624NameBinding 6};

irpAgent-managementNodeBehaviour ~~**bulkCmControl-irpAgentBehaviour**~~ BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a managedNode contains and
controls a irpAgent. When automatic instance naming is used, the choice
of name bindings left as a local matter.";

5.5.74.7 managementNode - subNetwork

managementNode-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS managementNode;
NAMED BY SUPERIOR OBJECT CLASS subNetwork;
WITH ATTRIBUTE managementNodeId;
BEHAVIOUR
managementNode-subNetworkBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-620-624NameBinding 7};

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

5.5.8 irpAgent - managedElement

irpAgent-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS irpAgent;
NAMED BY SUPERIOR OBJECT CLASS managedElement;
WITH ATTRIBUTE irpAgentId;
BEHAVIOUR
irpAgent-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 8};

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

5.5.9 bcmControl - irpAgent

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 {ts32-624NameBinding 9};

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.";

5.5.10 vsDataContainer - vsDataContainer

vsDataContainer-vsDataContainer NAME BINDING
SUBORDINATE OBJECT CLASS vsDataContainer;
NAMED BY SUPERIOR OBJECT CLASS vsDataContainer;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-vsDataContainerBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 10};

vsDataContainer-vsDataContainerBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a vsDataContainer contains and controls another 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 Bulk CM IRP CMIP SS defined in 3GPP TS 32.6102-4.";

6 ASN.1 Definitions

TS32-~~620~~-624TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts-32-~~620~~-624 (62~~40~~)
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)} ~~IMPORTS~~

-- 3GPP TS 32.62~~0~~-4 related Object Identifiers

baseNodeUMTS OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-Operation-Maintenance(3)}
ts32-~~620~~-624 OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-~~620~~-624(62~~40~~)}
ts32-~~620~~-624InfoModel OBJECT IDENTIFIER ::= { ts32-~~620~~-624 informationModel(0)}

ts32-~~620~~-624ObjectClass OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel managedObjectClass(3)}
ts32-~~620~~-624Package OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel package(4)}
ts32-~~620~~-624Parameter OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel parameter(5)}
ts32-~~620~~-624NameBinding OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel nameBinding(6)}
ts32-~~620~~-624Attribute OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel attribute(7)}
ts32-~~620~~-624Action OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel action(9)}
ts32-~~620~~-624Notification OBJECT IDENTIFIER ::= { ts32-~~620~~-624InfoModel notification(10)}

-- Start of 3GPP SA5 own definitions

ErrorCauses ::= ENUMERATED
{
noError (0),
wrongInput (1),
unspecifiedErrorReason (255)
}
ManagedElementType::= SET OF ENUMERATED
{

rnc (1),
nodeB (2),
msc (3),
hLR (4),
vLR (5),
aUC (6),
eIR (7),
sms-IWMNSC (8),
sms-GMSC (9),
sGSN (10),
gGSN (11),
bG (12),
gmsc (13),
smlc (14),
gmlc (15),
scf (16),
srf (17),
cbc (18),
cgf (19),
mgw (20),
gmscServer (21),
iwf (22),
mnpSrf (23),
npdb (24),
rSgw (25),
ssf (26),
bs (27),
msc-Server (28)
}
GeneralObjectId ::= INTEGER
UserDefinedState ::= INTEGER
GeneralObjectPointer ::= ObjectInstance
GeneralObjectPointerList ::= SEQUENCE OF ObjectInstance
IRPNames::= SET OF ENUMERATED
{
notificationIRP (1),
alarmIRP (2),
basicCmIRP (3),
bulkCmIRP (4),
genericNRM (5),
cnNRM (6),
utranNRM (7),
geranNRM (8)
}
SupportedIRPs ::= SET OF IRPNames

VsDataType ::= GraphicString

VsData ::= GraphicString
VsDataFormatVersion ::= GraphicString
IrpVersion ::= GraphicString
SupportedBCmIRPVersions ::= SET OF IrpVersion
UserDefinedNetworkType ::= GraphicString
SwVersion ::= GraphicString
GetBCmIRPVersionReply ::= SEQUENCE
{
versionNumbersList SupportedBCmIRPVersions,
status ErrorCauses
}

END -- of TS32-620-624TypeModule

3GPP TSG-SA5 (Telecom Management) **S5-010575**
Meeting #22, Paris, France, 3-7 September 2001 **S5C010364**

CR-Form-v4

CHANGE REQUEST

⌘ **32.634** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change: ⌘

1. Change according to the new numbering of SA5 R4 documents
2. Making R4 independent of R99
3. Other editorial changes including error corrections in GDMO/ASN.1 codes.

Summary of change: ⌘

1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references.
2. Replacing GDMO references to R99 with real codes
3. Other editorial changes error correction including error corrections in GDMO/ASN.1 codes

Consequences if not approved: ⌘ The document would be inconsistent and unreadable.

Clauses affected: ⌘ Clause 4, Clause 5 and Clause 6

Other specs affected: ⌘
☐ Other core specifications ⌘
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Basic aspects

4.1 Explanation

A technology independent CN network resource model is defined in 3GPP TS 32.63221-2 for 3G networks. This document provides an implementation of this CN network resource model by using CMIP technology.

4.2 Mapping

The semantic of the CN Network Resource Model is defined in 3GPP TS 32.63221-2. 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 UTRAN Network Resource IRP.

4.2.1 Mapping of MOCs

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

Table 1: Mapping of MOCs

Managed Objects of the CN NR IRP NRM	MOCs of this CMIP SS
AucFunction	aAucFunction ~~(3GPP TS 32.106-7: 6.2001)~~
BgFunction	bgFunction ~~(3GPP TS 32.106-7: 6.2001)~~
EirFunction	eirFunction ~~(3GPP TS 32.106-7: 6.2001)~~
GgsnFunction	ggsnFunction ~~(3GPP TS 32.106-7: 6.2001)~~
GmscFunction	gmscFunction ~~(3GPP TS 32.106-7: 6.2001)~~
HlrFunction	hlrFunction ~~(3GPP TS 32.106-7: 6.2001)~~
MscFunction	mscFunction ~~(3GPP TS 32.106-7: 6.2001)~~
SgsnFunction	sgsnFunction ~~(3GPP TS 32.106-7: 6.2001)~~
SmsGmscFunction	smsGmscFunction ~~(3GPP TS 32.106-7: 6.2001)~~
SmsIwmscFunction	smsIwmscFunction ~~(3GPP TS 32.106-7: 6.2001)~~
VlrFunction	vlrFunction ~~(3GPP TS 32.106-7: 6.2001)~~
SmlcFunction	smlcFunction
GmlcFunction	gmlcFunction
ScfeFunction	scfeFunction
SrfFunction	srfFunction
CbcFunction	cbcFunction
CqfFunction	cqfFunction
MgwFunction	mgwFunction
GmscFunction	gmscFunction
IwfFunction	iwfFunction
MnpSrfFunction	mnpSrfFunction
NpdbFunction	npdbFunction
RSgwFunction	rSgwFunction
SsfFunction	ssfFunction
BsFunction	bsFunction

4.2.2 Mapping of Attributes

Table 2: Mapping of Attributes

Attribute defined in 3GPP TS 32.6321-2	Attribute defined in this CMIP SS
UserLabel	userLabel (3GPP TS 32.106-7: 6.2001ITU-T M.3100 1995)
aAucFunctionId	aAucFunctionId (3GPP TS 32.106-7: 6.2001)
bBgFunctionId	bgFunctionId (3GPP TS 32.106-7: 6.2001)
eirFunctionId	eirFunctionId (3GPP TS 32.106-7: 6.2001)
ggsnFunctionId	ggsnFunctionId (3GPP TS 32.106-7: 6.2001)
gmscFunctionId	gmscFunctionId (3GPP TS 32.106-7: 6.2001)
hlrFunctionId	hlrFunctionId (3GPP TS 32.106-7: 6.2001)
mscFunctionId	mscFunctionId (3GPP TS 32.106-7: 6.2001)
vlrFunctionId	vlrFunctionId (3GPP TS 32.106-7: 6.2001)
sgsnFunctionId	sgsnFunctionId (3GPP TS 32.106-7: 6.2001)
smsGmscFunctionId	smsGmscFunctionId (3GPP TS 32.106-7: 6.2001)
smsIwmscFunctionId	smsIwmscFunctionId (3GPP TS 32.106-7: 6.2001)
smlcFunctionId	smlcFunctionId
gmlcFunctionId	gmlcFunctionId
scfcFunctionId	scfcFunctionId
srfFunctionId	srfFunctionId
cbcFunctionId	cbcFunctionId
cqfFunctionId	cqfFunctionId
mgwFunctionId	mgwFunctionId
gmscFunctionId	gmscFunctionId
iwfFunctionId	iwfFunctionId
mnpSrfFunctionId	mnpSrfFunctionId
npdbFunctionId	npdbFunctionId
rSgwFunctionId	rSgwFunctionId
ssfFunctionId	ssfFunctionId
bsFunctionId	bsFunctionId

5 GDMO Definitions

5.1 Managed Object Classes

5.1.1 smlcFunction

smlcFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.106-7: 6.20013GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
smlcFunctionBasicPackage PACKAGE
BEHAVIOUR **smlcFunctionBasicPackageBehaviour;**
ATTRIBUTES
smlcFunctionId GET;;;
REGISTERED AS {ts32-621ts32-634ObjectClass 1};

smlcFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents SMLC functionality. For more information about the SMLC, see 3GPP TS 23.002";

5.1.2 gmlcFunction

gmlcFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
gmlcFunctionBasicPackage PACKAGE
BEHAVIOUR **gmlcFunctionBasicPackageBehaviour;**
ATTRIBUTES
gmlcFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 2};

gmlcFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents GMLC functionality. For more information about the GMLC, see 3GPP TS 23.002";

5.1.3 scfFunction

scfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
scfFunctionBasicPackage PACKAGE
BEHAVIOUR **scfFunctionBasicPackageBehaviour;**
ATTRIBUTES
scfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 3};

scfFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents SCF functionality. For more information about the SCF, see 3GPP TS 23.002";

5.1.4 srfFunction

srfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
s~~r~~efFunctionBasicPackage PACKAGE
BEHAVIOUR **srfFunctionBasicPackageBehaviour;**
ATTRIBUTES
srfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 4};

srfFunctionBasicPackageBehaviour BEHAVIOUR

DEFINED AS
" This Managed Object Class represents SRF functionality. For more information about the SRF, see 3GPP TS 23.002";

5.1.5 cbcFunction

cbcFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
cbcFunctionBasicPackage PACKAGE
BEHAVIOUR **cbcFunctionBasicPackageBehaviour;**
ATTRIBUTES
cbcFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 5};

cbcFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents SBC functionality. For more information about the SBC, see 3GPP TS 23.002";

5.1.6 cgfFunction

cgfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
cgfFunctionBasicPackage PACKAGE
BEHAVIOUR **cgfFunctionBasicPackageBehaviour;**
ATTRIBUTES
cgfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 6};

cgfFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents CGF functionality. For more information about the CGF, see 3GPP TS 23.002";

5.1.7 mgwFunction

mgwFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
mgwFunctionBasicPackage PACKAGE
BEHAVIOUR **mgwFunctionBasicPackageBehaviour;**
ATTRIBUTES
mgwFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 7};

mgwFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents MGW functionality. For more information about the MGW, see 3GPP TS 23.002";

5.1.8 gmscFunction

gmscFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
gmsc~~scf~~FunctionBasicPackage PACKAGE
BEHAVIOUR **gmscFunctionBasicPackageBehaviour;**
ATTRIBUTES
gmscFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 8};

gmscFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents gmsc functionality. For more information about the gmsc, see 3GPP TS 23.002";

5.1.9 iwfFunction

iwfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
iw~~sc~~fFunctionBasicPackage PACKAGE
BEHAVIOUR **iwfFunctionBasicPackageBehaviour;**
ATTRIBUTES
iwfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 9};

iwfFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents IWF functionality. For more information about the IWF, see 3GPP TS 23.002";

5.1.10 mnpSrfFunction

mnpSrfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
~~s~~emnpSrfFunctionBasicPackage PACKAGE
BEHAVIOUR **mnpSrfFunctionBasicPackageBehaviour;**
ATTRIBUTES

mnpSrfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 10};

mnpSrfFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents MNPSRF functionality. For more information about the MNPSRF, see 3GPP TS 23.002";

5.1.11 npdbFunction

npdbFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
mpdb~~scf~~FunctionBasicPackage PACKAGE
BEHAVIOUR **npdbFunctionBasicPackageBehaviour;**
ATTRIBUTES
npdbFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 11};

npdbFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents NPDB functionality. For more information about the NPDB, see 3GPP TS 23.002";

5.1.12 rSgwFunction

rSgwFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
rSgw~~scf~~FunctionBasicPackage PACKAGE
BEHAVIOUR **rSgwFunctionBasicPackageBehaviour;**
ATTRIBUTES
rSgwFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 12};

rSgwFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents R-SGW functionality. For more information about the R-SGW, see 3GPP TS 23.002";

5.1.13 ssfFunction

ssfFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
s~~e~~fFunctionBasicPackage PACKAGE

BEHAVIOUR **ssfFunctionBasicPackageBehaviour;**
ATTRIBUTES
ssfFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 13};

ssfFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents SSF functionality. For more information about the SSF, see 3GPP TS 23.002";

5.1.14 bsFunction

bsFunction MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.106-7: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
bs~~cf~~FunctionBasicPackage PACKAGE
BEHAVIOUR **bsFunctionBasicPackageBehaviour;**
ATTRIBUTES
bsFunctionId GET;;;
REGISTERED AS {~~ts32-621~~ts32-634ObjectClass 14};

bsFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" This Managed Object Class represents BS functionality. For more information about the BS, see 3GPP TS 23.002";

5.1.15 aucFuntion

aucFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
aucFunctionBasicPackage PACKAGE
BEHAVIOUR aucFunctionBasicPackageBehaviour;
ATTRIBUTES
aucFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 15};

aucFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an AUC";

5.1.16 bgFunction

bgFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
bgFunctionBasicPackage PACKAGE
BEHAVIOUR
bgFunctionBasicPackageBehaviour;
ATTRIBUTES
bgFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 16};

bgFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an BG";

5.1.17 eirFunction

eirFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
eirFunctionBasicPackage PACKAGE
BEHAVIOUR
eirFunctionBasicPackageBehaviour;
ATTRIBUTES
eirFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 17};

eirFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an EIR";

5.1.18 ggsnFunction

ggsnFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
ggsnFunctionBasicPackage PACKAGE
BEHAVIOUR
ggsnFunctionBasicPackageBehaviour;
ATTRIBUTES
ggsnFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 18};

ggsnFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS

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

5.1.19 hlrFunction

hlrFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
hlrFunctionBasicPackage PACKAGE
BEHAVIOUR
hlrFunctionBasicPackageBehaviour;
ATTRIBUTES
hlrFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 19};

hlrFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of a HLR";;

5.1.21 mscFunction

mscFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
mscFunctionBasicPackage PACKAGE
BEHAVIOUR
mscFunctionBasicPackageBehaviour;
ATTRIBUTES
mscFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 21};

mscFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of a MSC";;

5.1.22 sgsnFunction

sgsnFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
sgsnFunctionBasicPackage PACKAGE
BEHAVIOUR
sgsnFunctionBasicPackageBehaviour;
ATTRIBUTES
sgsnFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 22};

sgsnFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an SGSN";;

5.1.23 smsGmscFunction

smsGmscFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
smsGmscFunctionBasicPackage PACKAGE
BEHAVIOUR
smsGmscFunctionBasicPackageBehaviour;
ATTRIBUTES
smsGmscFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 23};

smsGmscFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an smsGMSC";;

5.1.24 smsIwmscFunction

smsIwmscFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
smsIwmscFunctionBasicPackage PACKAGE
BEHAVIOUR
smsIwmscFunctionBasicPackageBehaviour;
ATTRIBUTES
smsIwmscFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 24};

smsIwmscFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of an smsIWMSC";;

5.1.25 vlrFunction

vlrFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
vlrFunctionBasicPackage PACKAGE
BEHAVIOUR
vlrFunctionBasicPackageBehaviour;

ATTRIBUTES
vlrFunctionId GET;;;
REGISTERED AS {ts32-634ObjectClass 25};

vlrFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"An instance of MOC represents the logical function of a VLR";;

5.2 Attributes

5.2.1 smlcFunctionId

smlcFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~.106.7~~.634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
smlcFunctionIdBehaviour;
REGISTERED AS {~~ts32.621~~ts32-634Attribute 1};

smlcFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a smlcFunction instance.";

5.2.2 gmlcFunctionId

gmlcFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~.106.7~~.634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gmlcFunctionIdBehaviour;
REGISTERED AS {~~ts32.621~~ts32-634Attribute 2};

gmlcFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a gmlcFunction instance.";

5.2.3 s~~f~~cfFunctionId

s~~f~~cfFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~.106.7~~.634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
s~~f~~cfFunctionIdBehaviour;

REGISTERED AS {~~ts32-621~~ts32-634Attribute 3};

s~~f~~cf~~f~~FunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a s~~f~~cf~~f~~Function instance.";

5.2.4 srfFunctionId

srfFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
srfFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 4};

srfFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a srfFunction instance.";

5.2.5 c~~C~~bcFunctionId

c~~C~~bcFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
c~~C~~bcFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 5};

c~~C~~bcFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a c~~C~~bcFunction instance.";

5.2.6 c~~C~~gfFunctionId

c~~C~~gfFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
c~~C~~gfFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 6};

c~~C~~gfFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a c~~C~~gfFunction instance.";

5.2.7 mgwFunctionId

mgwFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    mgwFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 7};

mgwFunctionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a mgwFunction instance.";

5.2.8 gmscFunctionId

gmscFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    gmscFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 8};

gmscFunctionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a gmscFunction instance.";

5.2.9 iwfFunctionId

iwfFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    iwfFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 9};

iwfFunctionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a iwfFunction instance.";

5.2.10 mnpSrfFunctionId

mnpSrfFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    mnpSrfFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 10};

mnpSrfFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a mnpSrfFunction instance.";

5.2.11 npdbFunctionId

npdbFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
npdbFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 11};

npdbFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a npdbFunction instance.";

5.2.12 rSgwFunctionId

rSgwFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
rSgwFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 12};

rSgwFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a rSgwFunction instance.";

5.2.13 ssfFunctionId

ssfFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32~~-106-7~~-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
ssfFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 13};

ssfFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a ssfFunction instance.";

5.2.14 bsFunctionId

bsFunctionId ATTRIBUTE

WITH ATTRIBUTE SYNTAX TS32-~~106-7-~~634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bsFunctionIdBehaviour;
REGISTERED AS {~~ts32-621~~ts32-634Attribute 14};

bsFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a bsFunction instance.";

5.2.15 aucFunctionId

aucFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
aucFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 15};

aucFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a aucFunction instance.";

5.2.16 bgFunctionId

bgFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bgFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 16};

bgFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a bgFunction instance.";

5.2.17 eirFunctionId

eirFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR

eirFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 17};

eirFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a eirFunction instance.";

5.2.18 ggsnFunctionId

ggsnFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
ggsnFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 18};

ggsnFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a ggsnFunction instance.";

5.2.19 gmscFunctionId

gmscFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gmscFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 19};

gmscFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a gmscFunction instance.";

5.2.20 hlrFunctionId

hlrFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
hlrFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 20};

hlrFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a hlrFunction instance.";

5.2.21 mscFunctionId

mscFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
mscFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 21};

mscFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a mscFunction instance.";

5.2.22 vlrFunctionId

vlrFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
vlrFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 22};

vlrFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a vlrFunction instance.";

5.2.23 sgsnFunctionId

sgsnFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
sgsnFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 23};

sgsnFunctionIdBehaviour BEHAVIOUR
DEFINED AS
" This attribute identifies a sgsnFunction instance.";

5.2.24 smsGmscFunctionId

smsGmscFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    smsGmscFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 24};

smsGmscFunctionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a smsGmscFunction instance.";

5.2.25 smsIwmscFunctionId

smsIwmscFunctionId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-634TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    smsIwmscFunctionIdBehaviour;
REGISTERED AS {ts32-634Attribute 25};

smsIwmscFunctionIdBehaviour BEHAVIOUR
  DEFINED AS
    " This attribute identifies a smsIwmscFunction instance.";

5.3 Name Binding

5.3.1 smlcFunction - managedElement

smlcFunction-managedElement NAME BINDING
  SUBORDINATE OBJECT CLASS smlc~~rnc~~Function;
  NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620 4: 6.2001~~3GPP TS 32.624 Release 4":
managedElement;
  WITH ATTRIBUTE smlcFunctionId;
  BEHAVIOUR
    smlcFunction-managedElementBehaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32 621~~ts32-634NameBinding 1};

smlcFunction-managedElementBehaviour BEHAVIOUR

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

5.3.2 gmlcFunction - managedElement

gmlcFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS gmlc~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE gmlcFunctionId;
BEHAVIOUR
gmlcFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 2};

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

5.3.3 sc~~f~~e~~e~~Function - managedElement

sc~~f~~e~~e~~Function-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS scf~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE sc~~f~~e~~e~~FunctionId;
BEHAVIOUR
sc~~f~~e~~e~~Function-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 3};

sc~~f~~e~~e~~Function-managedElementBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a managedElement contains and controls a sc~~f~~e~~e~~Function. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.3.4 srfFunction - managedElement

srfFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS srf~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;

WITH ATTRIBUTE srfFunctionId;
BEHAVIOUR
srfFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 4};

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

5.3.5 cbcFunction - managedElement

cbcFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS cbc~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE cbcFunctionId;
BEHAVIOUR
cbcFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 5};

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

5.3.6 cgfFunction - managedElement

cgfFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS cgf~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE cgfFunctionId;
BEHAVIOUR
cgfFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 6};

cgfFunction-managedElementBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a managedElement contains and

controls a cgfFunction. When automatic instance naming is used, the choice
of name bindings is left as a local matter.";

5.3.7 mgwFunction - managedElement

mgwFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS mgw~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE mgwFunctionId;
BEHAVIOUR
mgwFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 7};

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

5.3.8 gmscFunction - managedElement

gmscFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS gmsc~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE gmscFunctionId;
BEHAVIOUR
gmscFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 8};

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

5.3.9 iwfFunction - managedElement

iwfFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS iwf~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE iwfFunctionId;
BEHAVIOUR

iwfFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 9};

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

5.3.10 mnpSrfFunction - managedElement

mnpSrfFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS mnpSrf~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE mnpSrfFunctionId;
BEHAVIOUR
mnpSrfFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 10};

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

5.3.11 npdbFunction - managedElement

npdbFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS npdb~~rnc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE npdbFunctionId;
BEHAVIOUR
npdbFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 11};

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

5.3.12 rSgwFunction - managedElement

rSgwFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS rSgw~~nc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE rSgwFunctionId;
BEHAVIOUR
rSgwFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 12};

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

5.3.13 ssfFunction - managedElement

ssfFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS ssf~~nc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE ssfFunctionId;
BEHAVIOUR
ssfFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 13};

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

5.3.14 bsFunction - managedElement

bsFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS bs~~nc~~Function;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE bsFunctionId;
BEHAVIOUR
bsFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;

DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-621~~ts32-634NameBinding 14};

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

5.3.15 aucFunction - managedElement

aucFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS aucFunction;
NAMED BY SUPERIOR OBJECT CLASS "3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE aucFunctionId;
BEHAVIOUR
aucFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 15};

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

5.3.16 bgFunction - managedElement

bgFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS bgFunction;
NAMED BY SUPERIOR OBJECT CLASS "3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE bgFunctionId;
BEHAVIOUR
bgFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 16};

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

5.3.17 eirFunction - managedElement

eirFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS eirFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE eirFunctionId;
BEHAVIOUR
eirFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 17};

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

5.3.18 ggsnFunction - managedElement

ggsnFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS ggsnFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE ggsnFunctionId;
BEHAVIOUR
ggsnFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 18};

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

5.3.19 gmscFunction - managedElement

gmscFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS gmscFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE gmscFunctionId;
BEHAVIOUR
gmscFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {ts32-634NameBinding 19};

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

5.3.20 hlrFunction - managedElement

hlrFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS hlrFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE hlrFunctionId;
BEHAVIOUR
hlrFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 20};

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

5.3.21 mscFunction - managedElement

mscFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS mscFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE mscFunctionId;
BEHAVIOUR
mscFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 21};

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

5.3.22 vlrFunction - managedElement

vlrFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS vlrFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE vlrFunctionId;
BEHAVIOUR
vlrFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 22};

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

5.3.23 sgsnFunction - managedElement

sgsnFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS sgsnFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE sgsnFunctionId;
BEHAVIOUR
sgsnFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 23};

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

5.3.24 smsGmscFunction - managedElement

smsGmscFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS smsGmscFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE smsGmscFunctionId;
BEHAVIOUR
smsGmscFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {ts32-634NameBinding 24};

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

5.3.25 smsIwmscFunction - managedElement

smsIwmscFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS smsIwmscFunction;
NAMED BY SUPERIOR OBJECT CLASS “3GPP TS 32.624 Release 4”: managedElement;
WITH ATTRIBUTE smsIwmscFunctionId;
BEHAVIOUR
smsIwmscFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-634NameBinding 25};

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

6 ASN.1 Definitions

~~TS32.621~~TS32-634TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts-32-63~~421~~ (63~~421~~)
informationModel (0) asn1Module (2) version1 (1)}

DEFINITIONS IMPLICIT TAGS ::=
BEGIN
--EXPORTS everything

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

-- 3GPP TS 32.63~~421~~ ~~4~~ related Object Identifiers

baseNodeUMTS OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-Operation-Maintenance(3)}
~~ts32.621~~ts32-634 OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-63~~421~~(63~~421~~)}
~~ts32.621~~ts32-634InfoModel OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634 informationModel(0)}

~~ts32.621~~ts32-634ObjectClass OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel managedObjectClass(3)}
~~ts32.621~~ts32-634Package OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel package(4)}
~~ts32.621~~ts32-634Parameter OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel parameter(5)}
~~ts32.621~~ts32-634NameBinding OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel nameBinding(6)}
~~ts32.621~~ts32-634Attribute OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel attribute(7)}
~~ts32.621~~ts32-634Action OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel action(9)}
~~ts32.621~~ts32-634Notification OBJECT IDENTIFIER ::= { ~~ts32.621~~ts32-634InfoModel notification(10)}

-- Start of 3gPP SA5 own definitions

END -- of ~~TS32.621~~TS32-634TypeModule

3GPP TSG-SA5 (Telecom Management) **S5-010576**
Meeting #22, Paris, France, 3-7 September 2001 **S5C010365**

CR-Form-v4

CHANGE REQUEST

⌘ **32.644** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change: ⌘

1. Change according to the renumbering of SA5 R4 documents
2. Making R4 independent of R99
3. Other editorial changes including error corrections in GDMO/ASN.1 codes.

Summary of change: ⌘

1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references.
2. Replacing GDMO references to R99 with real codes
3. Other editorial changes error correction including error corrections in GDMO/ASN.1 codes

Consequences if not approved: ⌘ The document would be inconsistent and unreadable.

Clauses affected: ⌘ Clause 4, Clause 5 and Clause 6

Other specs affected: ⌘
☐ Other core specifications ⌘
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Basic aspects

4.1 Explanation

A technology independent UTRAN network resource model is defined in 3GPP TS 32.64222 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 UTRAN Network Resource Model is defined in 3GPP TS 32.64222. 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 UTRAN 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
RncFunction	rncFunction
UtranCell	utranCell
IubLink	iubLink ~~(3GPP TS 32.106-7: 6.2001)~~
NodeBFunction	nodeBFunction ~~(3GPP TS 32.106-7: 6.2001)~~
UtranRelation	utranRelation
ExternalUtranCell	externalUtranCell

4.2.2 Mapping of Attributes

Table 2: Mapping of Attributes

Attribute defined in 3GPP TS 32.64422-2	Attribute defined in this CMIP SS
rncFunctionId	rncFunctionId (3GPP TS 32.106-7: 6.2001)
userLabel	userLabel (3GPP TS 32.106-7: 6.2001)(ITU-T M.3100 1995)
nodeBFunctionId	nodeBFunctionId (3GPP TS 32.106-7: 6.2001)
nodeBFunction-IubLink	nodeB2iubLinkLink (3GPP TS 32.106-7: 6.2001)
utranCellId	utranCellId (3GPP TS 32.106-7: 6.2001)
utranCell-IubLink	utranCell2iubLinkLink (3GPP TS 32.106-7: 6.2001)
iubLinkId	iubLinkId (3GPP TS 32.106-7: 6.2001)
iubLink-UtranCell	iubLink2UtranCellLink (3GPP TS 32.106-7: 6.2001)
iubLink-NodeBFunction	iubLink2NodeBFunctionLink (3GPP TS 32.106-7: 6.2001)
mcc	mcc
mnc	mnc
rncId	rncId
cId	cId
localCellId	localCellId
uarfcnUl	uarfcnUl
uarfcnDl	uarfcnDl
primaryScramblingCode	primaryScramblingCode
primaryCpichPower	primaryCpichPower
maximumTransmissionPower	maximumTransmissionPower
primarySchPower	primarySchPower
secondarySchPower	secondarySchPower
bchPower	bchPower
lac	lac
rac	rac
sac	sac
ura	ura
utranRelationId	utranRelationId
relationType	relationType
adjacentCell	adjacentCell
uarfcnUl	uarfcnUl
uarfcnDl	uarfcnDl
primaryScramblingCode	primaryScramblingCode
primaryCpichPower	primaryCpichPower
externalUtranCellId	externalUtranCellId

5 GDMO Definitions

5.1.1 rncFunction

rncFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.620-4: 6.20013GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
"3GPP TS 32.620-4: 6.2001": rncFunctionBasicPackage,
rncFunctionHandoverPackage;
REGISTERED AS {ts32-622ts32-644ObjectClass 1};

5.1.2 utranCell

utranCell MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.620-4: 6.20013GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY

utranCellBasicPackage,
utranCellHandoverPackage,
utranCell~~IubLink~~AssociationPackage;
REGISTERED AS {~~ts32-622~~ts32-644ObjectClass 2};

5.1.3 utranRelation

utranRelation MANAGED OBJECT CLASS
DERIVED FROM "Recommendation X.721: 1992":top;
CHARACTERIZED BY
utranRelationBasicPackage,
utranRelationAssociationPackage;
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.",
REGISTERED AS {~~ts32-622~~ts32-644ObjectClass 3};

5.1.4 externalUtranCell

externalUtranCell MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
externalUtranCellPackage;
REGISTERED AS {~~ts32-622~~ts32-644ObjectClass 4};

5.1.5 iubLink

iubLink MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
iubLinkBasicPackage,
iubLinkAssociationPackage;
REGISTERED AS {ts32-644ObjectClass 5};

5.1.6 nodeBFunction

nodeBFunction MANAGED OBJECT CLASS
DERIVED FROM "3GPP TS 32.624 Release 4": managedFunction;
CHARACTERIZED BY
nodeBFunctionBasicPackage,
nodeBFunctionAssociationPackage;
REGISTERED AS {ts32-644ObjectClass 6};

5.2 Packages

5.2.1 rncFunctionHandoverPackage

rncFunctionHandoverPackage PACKAGE
BEHAVIOUR
rncFunctionHandoverPackageBehaviour;
ATTRIBUTES
mcc ~~GET-SET~~GET-REPLACE,
mnc ~~GET-SET~~GET-REPLACE,
rncId ~~GET-SET~~GET-REPLACE~~,~~;
REGISTERED AS {~~ts32-622~~ts32-644Package 1};

rncFunctionHandoverPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains all new attributes defined for UTRAN handover management. These attributes are introduced in R4.”;

5.2.2 utranCellHandoverPackage

utranCellHandoverPackage PACKAGE
BEHAVIOUR
utranCellHandoverPackageBehaviour;
ATTRIBUTES
cId ~~GET-SET~~GET-REPLACE,
localCellId ~~GET-SET~~GET-REPLACE,
uarfcnUl ~~GET-SET~~GET-REPLACE,
uarfcnDl ~~GET-SET~~GET-REPLACE,
primaryScramblingCode ~~GET-SET~~GET-REPLACE,
primaryCpichPower ~~GET-SET~~GET-REPLACE,
maximumTransmissionPower ~~GET-SET~~GET-REPLACE,
primarySchPower ~~GET-SET~~GET-REPLACE,
secondarySchPower ~~GET-SET~~GET-REPLACE,
bchPower ~~GET-SET~~GET-REPLACE,
lac ~~GET-SET~~GET-REPLACE,
rac ~~GET-SET~~GET-REPLACE,
sac ~~GET-SET~~GET-REPLACE,
ura ~~GET-SET~~GET-REPLACE;
REGISTERED AS {~~ts32-622~~ts32-644Package 2};

utranCellHandoverPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains all new attributes defined for UTRAN handover management. These attributes are introduced in R4.”;

5.2.3 utranRelationBasicPackage

utranRelationBasicPackage PACKAGE

BEHAVIOUR
utranRelationBasicPackageBehaviour;
ATTRIBUTES
utranRelationId GET,
relationType ~~GET-SET~~GET-REPLACE,
uarfcnUl GET,
uarfcnDl GET,
primaryScramblingCode GET,
primaryCpichPower GET,
lac GET;
REGISTERED AS {~~ts32-622~~ts32-644Package 3};

utranRelationBasicPackageBehaviour BEHAVIOUR
DEFINED AS
" The 'UtranRelation' managed object contains radio network related parameters for the relation to the 'UtranCell' or 'ExternalUtranCell' managed object. Note: In handover relation terms, the cell containing the UTRAN Relation object is the source cell for the handover. The cell referred to in the UTRAN 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.";

5.2.4 utranRelationAssociationPackage

utranRelationAssociationPackage PACKAGE
BEHAVIOUR
utranRelationAssociationPackageBehaviour;
ATTRIBUTES
adjacentCell ~~GET-SET~~GET-REPLACE;
REGISTERED AS {~~ts32-622~~ts32-644Package 4};

utranRelationAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains all attributes implementing associations related to an utranRelation";

5.2.5 externalUtranCellPackage

externalUtranCellPackage PACKAGE
BEHAVIOUR
externalUtranCellPackageBehaviour;
ATTRIBUTES
externalUtranCellId GET,
~~"3GPP TS 32.106-7: 6.2001": userLabel GET-REPLACE,~~
cId GET-REPLACE,
mcc ~~GET-SET~~GET-REPLACE,
mnc ~~GET-SET~~GET-REPLACE,
rncId ~~GET-SET~~GET-REPLACE,
uarfcnUl ~~GET-SET~~GET-REPLACE,

uarfcnDl ~~GET-SET~~GET-REPLACE,
primaryScramblingCode ~~GET-SET~~GET-REPLACE,
primaryCpichPower ~~GET-SET~~GET-REPLACE,
lac ~~GET-SET~~GET-REPLACE,
rac ~~GET-SET~~GET-REPLACE;
REGISTERED AS {~~ts32-622~~ts32-644Package 5};

externalUtranCellPackageBehaviour 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.";

5.2.6 rncFunctionBasicPackage

rncFunctionBasicPackage PACKAGE
BEHAVIOUR
rncFunctionBasicPackageBehaviour;
ATTRIBUTES
rncFunctionId GET;
REGISTERED AS {ts32-644Package 6};

rncFunctionBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"The MOC rncFunction represents UMTS RNC function.";

5.2.7 utranCellBasicPackage

utranCellBasicPackage PACKAGE
BEHAVIOUR
utranCellBasicPackageBehaviour;
ATTRIBUTES
utranCellId GET;
REGISTERED AS {ts32-644Package 7};

utranCellBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"This managed object class represents the radio cell controlled by a RNC.";

5.2.8 utranCellAssociationPackage

utranCellAssociationPackage PACKAGE
BEHAVIOUR
utranCellAssociationPackageBehaviour;
ATTRIBUTES
utranCell2iubLink GET;

REGISTERED AS {ts32-644Package 8};

utranCellAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains the pointer attributes that implement associations related to utranCell.";

5.2.9 iubLinkBasicPackage

iubLinkBasicPackage PACKAGE
BEHAVIOUR
iubLinkBasicPackageBehaviour;
ATTRIBUTES
iubLinkId GET;
REGISTERED AS {ts32-644Package 9};

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

5.2.10 iubLinkAssociation

iubLinkAssociationPackage PACKAGE
BEHAVIOUR
iubLinkAssociationPackageBehaviour;
ATTRIBUTES
iubLink2NodeBFunction GET,
iubLink2UtranCell GET;
REGISTERED AS {ts32-644Package 10};

iubLinkAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"The attribute 'iubLink2NodeBFunction' points to the nodeBFunction instance which this iubLink instance connects to. The attribute 'iubLink2UtranCell' points to a list of utranCell instances which attach to the nodeBFunction this iubLink connects to.";

5.2.11 nodeBFunctionBasicPackage

nodeBFunctionBasicPackage PACKAGE
BEHAVIOUR
nodeBFunctionBasicPackageBehaviour;
ATTRIBUTES
nodeBFunctionId GET;
REGISTERED AS {ts32-644Package 11};

nodeBFunctionBasicPackageBehaviour BEHAVIOUR

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

5.2.12 nodeBFunctionAssociationPackage

nodeBFunctionAssociationPackage PACKAGE
BEHAVIOUR
nodeBFunctionAssociationPackageBehaviour;
ATTRIBUTES
nodeB2iubLink GET;
REGISTERED AS {ts32-644Package 12};

nodeBFunctionAssociationPackageBehaviour BEHAVIOUR
DEFINED AS
"The attribute 'nodeB2iubLink' points to the iubLink instance which connects
to this nodeBFunction instance directly.";

5.3 Attributes

5.3.1 mcc

mcc ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~GSM1220TypeModule~~TS32-644TypeModule.MobileCountryCode;
MATCHES FOR EQUALITY;
BEHAVIOUR
mccBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 1};

mccBehaviour BEHAVIOUR
DEFINED AS
" Mobile Country Code, MCC. It is a part of the PLMN Id (Ref. 3 GPP TS 23.003).";

5.3.2 mnc

mnc ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~GSM1220TypeModule~~TS32-644TypeModule.NetworkCode;
MATCHES FOR EQUALITY;
BEHAVIOUR
mncBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 2};

mncBehaviour BEHAVIOUR
DEFINED AS
" Mobile Network Code, MNC. It is a part of the PLMN Id (Ref. 3 GPP TS 23.003).";

5.3.3 rncId

rncId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.RncId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    rncIdBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 3};

rncIdBehaviour BEHAVIOUR
  DEFINED AS
    " Unique RNC ID (Ref. 3 GPP TS 23.003)." ;

5.3.4 cId

cId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.CId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    cIdBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 4};

~~rn~~**cIdBehaviour** BEHAVIOUR
  DEFINED AS
    " cId is the identifier of a cell in one RNC (Ref. 3 GPP TS 25.401).";

5.3.5 localCellId

localCellId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.LocalCellId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    localCellIdBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 5};

localCellIdBehaviour BEHAVIOUR
  DEFINED AS
    " Local Cell id is used to uniquely identify the set of resources defined in a Node B to support a cell (as defined by a Cid Ref. 3 GPP TS 25.401). It must be unique in Node B at a minimum, but may be unique in UTRAN. It can be used to tie the cell in the RNC to a specific set of resources in the Node B.";

5.3.6 uarfcnUl

uarfcnUl ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.UarfcnUl;
  MATCHES FOR EQUALITY;
  BEHAVIOUR

uarfcnUlBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 6};

uarfcnUlBehaviour BEHAVIOUR
DEFINED AS
" The UL UTRA absolute Radio Frequency Channel number, UARFCN (Ref. 3 GPP TS 25.433).";

5.3.7 uarfcnDl

uarfcnDl ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.UarfcnDl;
MATCHES FOR EQUALITY;
BEHAVIOUR
uarfcnDlBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 7};

uarfcnDlBehaviour BEHAVIOUR
DEFINED AS
" The DL UTRA absolute Radio Frequency Channel number, UARFCN (Ref. 3 GPP TS 25.433).";

5.3.8 primaryScramblingCode

primaryScramblingCode ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.PrimaryScramblingCode;
MATCHES FOR EQUALITY;
BEHAVIOUR
primaryScramblingCodeBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 8};

primaryScramblingCodeBehaviour BEHAVIOUR
DEFINED AS
" The primary DL scrambling code used by the cell (Ref. 3 GPP TS 25.433).";

5.3.9 primaryCpichPower

primaryCpichPower ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.PrimaryCpichPower;
MATCHES FOR EQUALITY;
BEHAVIOUR
primaryCpichPowerBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 9};

primaryCpichPowerBehaviour BEHAVIOUR
DEFINED AS
" The power of the primary CPICH channel in the cell (Ref. 3 GPP TS 25.433).";

5.3.10 maximumTransmissionPower

maximumTransmissionPower ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.MaximumTransmissionPower;
MATCHES FOR EQUALITY;
BEHAVIOUR
maximumTransmissionPowerBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 10};

maximumTransmissionPowerBehaviour BEHAVIOUR
DEFINED AS
" The maximum transmission power of a cell, DL Power (Ref. 3 GPP TS 25.433).";

5.3.11 primarySchPower

primarySchPower ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.PrimarySchPower;
MATCHES FOR EQUALITY;
BEHAVIOUR
primarySchPowerBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 11};

primarySchPowerBehaviour BEHAVIOUR
DEFINED AS
" The power of the primary synchronisation channel in the cell, DL Power (Ref. 3 GPP TS 25.433).";

5.3.12 secondarySchPower

secondarySchPower ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.SecondarySchPower;
MATCHES FOR EQUALITY;
BEHAVIOUR
secondarySchPowerBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 12};

secondarySchPowerBehaviour BEHAVIOUR
DEFINED AS
" The power of the secondary synchronisation channel in the cell, DL Power (Ref. 3 GPP TS 25.433).";~~—~~

5.3.13 bchPower

bchPower ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.BchPower;
MATCHES FOR EQUALITY;
BEHAVIOUR

bchPowerBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 13};

bchPowerBehaviour BEHAVIOUR
DEFINED AS
" The power of the broadcast channel in the cell (Ref. 3 GPP TS 25.433).";

5.3.14 lac

lac ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~GSM1220TypeModule~~TS32-644TypeModule.LocationAreaCode;
MATCHES FOR EQUALITY;
BEHAVIOUR
lacBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 14};

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

5.3.15 rac

rac ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.Rac;
MATCHES FOR EQUALITY;
BEHAVIOUR
racBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 15};

racBehaviour BEHAVIOUR
DEFINED AS
" Routing Area Code, RAC (Ref. 3 GPP TS 23.003)";

5.3.16 sac

sac ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.Sac;
MATCHES FOR EQUALITY;
BEHAVIOUR
sacBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 16};

sacBehaviour BEHAVIOUR
DEFINED AS
" Service Area Code, RAC (Ref. 3 GPP TS 23.003)";

5.3.17 ura

ura ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.Ura;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    uraBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 17};

uraBehaviour BEHAVIOUR
  DEFINED AS
    " UTRAN Registration Area, URA (Ref. 3 GPP TS 25.423)";

5.3.18 utranRelationId

utranRelationId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-~~TS32-644~~106-7~~TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    utranRelationIdBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 18};

utranRelationIdBehaviour BEHAVIOUR
  DEFINED AS
    "This attribute identifies an utranRelation object.";

5.3.19 relationType

relationType ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-622~~TS32-644TypeModule.RelationType;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    relationTypeBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 19};

relationTypeBehaviour BEHAVIOUR
  DEFINED AS
    " Type of relation: e.g. Intersystem relation, intrafrequency intrasystem relation, interfrequency intrasystem relation.";

5.3.20 adjacentCell

adjacentCell ATTRIBUTE
  WITH ATTRIBUTE SYNTAX ~~TS32-~~TS32-644~~106-7~~TypeModule.GeneralObjectPointer;
  MATCHES FOR EQUALITY;

BEHAVIOUR
adjacentCellBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 20};

adjacentCellBehaviour BEHAVIOUR
DEFINED AS
"Pointer to UTRAN cell or external UTRAN cell. Distinguished name of the corresponding object.”;

5.3.21 externalUtranCellId

externalUtranCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-~~TS32-644~~106-7~~TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
adjacentCellBehaviour;
REGISTERED AS {~~ts32-622~~ts32-644Attribute 21};

externalUtranCellIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute identifies an externalUtranCell object.”;

5.3.22 rncFunctionId

rncFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
rncFunctionIdBehaviour;
REGISTERED AS {ts32-644Attribute 22};

rncFunctionIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'rncFunction' object class.";

5.3.23 utranCellId

utranCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
utranCellIdBehaviour;
REGISTERED AS {ts32-644Attribute 23};

utranCellIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'utranCell' object class.";

5.3.24 utranCell2iubLink

utranCell2iubLink ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectPointer;
MATCHES FOR EQUALITY;
BEHAVIOUR
utranCell2iubLinkBehaviour;
REGISTERED AS {ts32-644Attribute 24};

utranCell2iubLinkBehaviour BEHAVIOUR
DEFINED AS
"This attribute points to the iubLink instance connecting to this utranCell. ";

5.3.25 iubLinkId

iubLinkId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
iubLinkIdBehaviour;
REGISTERED AS {ts32-644Attribute 25};

iubLinkIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'iubLink' object class.";

5.3.26 iubLink2NodeBFunction

iubLink2NodeBFunction ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectPointer;
MATCHES FOR EQUALITY;
BEHAVIOUR
iubLink2NodeBFunctionBehaviour;
REGISTERED AS {ts32-644Attribute 26};

iubLink2NodeBFunctionBehaviour BEHAVIOUR
DEFINED AS
"This attribute points to the nodeBFunction instance which this iubLink instance connects directly to.";

5.3.27 iubLink2UtranCell

iubLink2UtranCell ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule.GeneralObjectPointerList;
MATCHES FOR EQUALITY;
BEHAVIOUR
iubLink2UtranCellBehaviour;
REGISTERED AS {ts32-644Attribute 27};

iubLink2UtranCellBehaviour BEHAVIOUR
DEFINED AS
"This attribute points from an iubLink instance to a list of utranCell instance";

5.3.28 nodeBFunctionId

nodeBFunctionId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule .GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
nodeBFunctionIdBehaviour;
REGISTERED AS {ts32-644Attribute 28};

nodeBFunctionIdBehaviour BEHAVIOUR
DEFINED AS
"This attribute names an instance of the 'nodeBFunction' object class.";

5.3.29 nodeB2iubLink

nodeB2iubLink ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-644TypeModule .GeneralObjectPointer;
MATCHES FOR EQUALITY;
BEHAVIOUR
nodeB2iubLinkBehaviour;
REGISTERED AS {ts32-644Attribute 29};

nodeB2iubLinkBehaviour BEHAVIOUR
DEFINED AS
"This attribute points to the IubLink instance which connects to the related
nodeBFunction instance directly.";

5.43 Name Binding

5.43.1 rncFunction - managedElement

rncFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS ~~"3GPP TS 32.106-7: 6.2001":~~ rncFunction;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 5.2001~~3GPP TS 32.624 Release4": managedElement;
WITH ATTRIBUTE ~~"3GPP TS 32.106-7: 6.2001":~~ rncFunctionId;
BEHAVIOUR
rncFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 1};

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

5.43.2 nodeBFunction - managedElement

nodeBFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS ~~"3GPP TS 32.106-7: 6.2001":~~ nodeBFunction;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 5.2001~~3GPP TS 32.624 Release4": managedElement;
WITH ATTRIBUTE ~~"3GPP TS 32.106-7: 6.2001":~~ nodeBFunctionId;
BEHAVIOUR
nodeBFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 2};

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

5.43.3 utranCell - rncFunction

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 {~~ts32-622~~ts32-644NameBinding 3};

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

5.~~4~~3.4 utranRelation - utranCell

utranRelation-utranCell NAME BINDING
SUBORDINATE OBJECT CLASS utranRelation;
NAMED BY SUPERIOR OBJECT CLASS utranCell;
WITH ATTRIBUTE utranRelationId;
BEHAVIOUR
utranRelation-utranCellBahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 4};

utranRelation-utranCellBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which an utranCell contains and controls an utranRelation. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.~~4~~3.5 externalUtranCell - subNetwork

externalUtranCell-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS externalUtranCell;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 05.2001~~3GPP TS 32.624 Release4": subNetwork;
WITH ATTRIBUTE externalUtranCellId;
BEHAVIOUR
externalUtranCell-subNetworkBe~~a~~haviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 5};

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

5.43.6 vsDataContainer - rncFunction

vsDataContainer-rncFunction NAME BINDING
SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.20013GPP TS 32.624 Release4":
vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS rncFunction;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-rncFunctionBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-622ts32-644NameBinding 6};

vsDataContainer-rncFunctionBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a rncFunction 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 32.602-432.614 Release 4.";

5.43.7 vsDataContainer - nodeBFunction

vsDataContainer-nodeBFunction NAME BINDING
SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.20013GPP TS 32.624 Release4":
vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS "3GPP TS 32.106-7: 06.2001": nodeBFunction;
WITH ATTRIBUTE "3GPP TS 32.624 Release4": vsDataContainerId;
BEHAVIOUR
vsDataContainer-nodeBFunctionBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-622ts32-644NameBinding 7};

vsDataContainer-nodeBFunctionBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a nodeBFunction 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 32.602-432.614 Release 4.";

5.43.8 vsDataContainer - utranCell

vsDataContainer-utranCell NAME BINDING
SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.20013GPP TS 32.624 Release4":
vsDataContainer:;

NAMED BY SUPERIOR OBJECT CLASS utranCell;
WITH ATTRIBUTE "3GPP TS 32.624 Release4": vsDataContainerId;
BEHAVIOUR
vsDataContainer-utranCellBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 8};

vsDataContainer-utranCellBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a utranCell 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~~32.614 Release 4.";

5.~~4~~3.9 vsDataContainer - utranRelation

vsDataContainer-utranRelation NAME BINDING
SUBORDINATE OBJECT CLASS "~~3GPP TS 32.620-4: 06.2001~~3GPP TS 32.624 Release4": vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS utranRelation;
WITH ATTRIBUTE "3GPP TS 32.624 Release4": vsDataContainerId;
BEHAVIOUR
vsDataContainer-utranCellRelationBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-622~~ts32-644NameBinding 9};

vsDataContainer-utranRelationBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a utranRelation 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~~32.614 Release 4.";

5.4.10 iubLink - rncFunction

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 {ts32-644NameBinding 10};

iubLink-rncFunctionBahaviour 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.";

6 ASN.1 Definitions

~~TS32-622~~TS32-644TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts-32-6~~4422~~ (6~~4422~~)
informationModel (0) asn1Module (2) version1 (1)}

DEFINITIONS IMPLICIT TAGS ::=
BEGIN
--EXPORTS everything

~~--~~IMPORTS
GeneralObjectId, GeneralObjectPointer, GeneralObjectPointerList
FROM TS32-624TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts32-624 (624)
informationModel (0) asn1Module (2) version1 (1)}
MobileCountryCode, MobileNetworkCode, LocationAreaCode
FROM GSM1220TypeModule {ccitt (0) identified-organization (4) etsi (0) mobileDomain (0) gsm-Operation-Maintenance (3) gsm-12-20 (20) informationModel (0) asn1Module (2) asn1TypeModule (0)}

-- 3GPP TS 32.6~~4422-4~~ related Object Identifiers

baseNodeUMTS OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0) umts-Operation-Maintenance(3)}
~~ts32-622~~ts32-644 OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-6~~4422~~(6~~4422~~)}
~~ts32-622~~ts32-644InfoModel OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644 informationModel(0)}

~~ts32-622~~ts32-644ObjectClass OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel managedObjectClass(3)}
~~ts32-622~~ts32-644Package OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel package(4)}
~~ts32-622~~ts32-644Parameter OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel parameter(5)}
~~ts32-622~~ts32-644NameBinding OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel nameBinding(6)}
~~ts32-622~~ts32-644Attribute OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel attribute(7)}
~~ts32-622~~ts32-644Action OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel action(9)}
~~ts32-622~~ts32-644Notification OBJECT IDENTIFIER ::= { ~~ts32-622~~ts32-644InfoModel notification(10)}

-- Start of 3GPP SA5 own definitions

RncId :: = ~~Integer~~INTEGER
CId ::= ~~Integer~~INTEGER
LocalCellId ::= ~~Integer~~INTEGER
UarfcnUl ::= ~~Integer~~INTEGER
UarfcnDl ::= ~~Integer~~INTEGER
PrimaryScramblingCode ::= ~~Integer~~INTEGER
PrimaryCpichPower ::= ~~Integer~~INTEGER
MaximumTransmissionPower ::= ~~Integer~~INTEGER
PrimarySchPower ::= ~~Integer~~INTEGER
SecondarySchPower ::= ~~Integer~~INTEGER
BchPower ::= ~~Integer~~INTEGER
Lac ::= ~~Integer~~INTEGER
Rac ::= ~~Integer~~INTEGER
Sac ::= ~~Integer~~INTEGER
Ura ::= ~~Integer~~INTEGER
RelationType ::= ENUMERATED
{
interSystem (1),
intraFrequencyIntraSystem (2),
interFrequencyIntraSystem (3)
}

END -- of ~~TS32-622~~TS32-644TypeModule

CR-Form-v4

CHANGE REQUEST

⌘ **32.654** **CR** **001** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Correction due to TS renumbering
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	07/09/2001
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change: ⌘

1. Change according to the new numbering of SA5 R4 documents
2. Other editorial changes including error corrections in GDMO/ASN.1 codes.

Summary of change: ⌘

1. Correcting all texts and codes necessary due to the renumbering of SA5 R4 documents, e.g. OIDs and document references.
2. Other editorial changes error correction including error corrections in GDMO/ASN.1 codes

Consequences if not approved: ⌘ The document would be inconsistent and unreadable.

Clauses affected: ⌘ Clause 4, Clause 5 and Clause 6

Other specs affected: ⌘
☐ Other core specifications
☐ Test specifications
☐ O&M Specifications
⌘

Other comments: ⌘

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Basic aspects

4.1 Explanation

A technology independent GERAN network resource model is defined in 3GPP TS 32.6522~~23-2~~ for 3G networks. This document provides an implementation of this ~~UTRAN~~ GERAN network resource model by using CMIP technology.

4.2 Mapping

The semantic of the GERAN Network Resource Model is defined in 3GPP TS 32.6522~~23-2~~. 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 GERAN~~UTRAN~~ Network Resource Model onto the equivalent MOCs of the CMIP Solution Set.

Table 1: Mapping of MOCs

Information Objects of the Generic GERAN~~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 32.65223-2	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 TS32.64422-4: 5.2001)
rac	rac (3GPP TS32.64422-4: 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 TS32.64422-4: 5.2001)
adjacentCell	adjacentCell (3GPP TS32.64422-4: 5.2001)
bcchFrequency	bcchFrequency (GSM 12.20 : 6.1996)
externalGsmlCellId	externalGsmCellId

5 GDMO Definitions

5.1 Managed Object Classes

5.1.1 bssFunction

bssFunction MANAGED OBJECT CLASS
  DERIVED FROM "3GPP TS 32.620-4: 6.20013GPP TS 32.624 Release 4": managedFunction;
  CHARACTERIZED BY
    bssFunctionBasicPackage;
REGISTERED AS {ts32-623ts32-654ObjectClass 1};

5.1.2 btsSiteMgr

btsSiteMgr MANAGED OBJECT CLASS
  DERIVED FROM "3GPP TS 32.620-4: 6.20013GPP TS 32.624 Release 4": 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 {ts32-623ts32-654ObjectClass 2};

5.1.3 gsmCell

gsmCell MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": 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 {~~ts32-623~~ts32-654ObjectClass 3};

5.1.4 externalGsmCell

externalGsm~~Utran~~**Cell** MANAGED OBJECT CLASS
DERIVED FROM "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": 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 {~~ts32-623~~ts32-654ObjectClass 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 {~~ts32-623~~ts32-654ObjectClass 5};

5.2 Packages

5.2.1 bssFunctionBasicPackage

bssFunctionBasicPackage PACKAGE

BEHAVIOUR
bssFunctionBasicPackageBehaviour;
ATTRIBUTES
bssFunctionId GET;

REGISTERED AS {~~ts32-623~~ts32-654Package 1};

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

5.2.2 btsSiteMgrBasicPackage

btsSiteMgrBasicPackage PACKAGE
BEHAVIOUR
btsSiteMgrBasicPackageBehaviour;
ATTRIBUTES
btsSiteMgrId GET;

REGISTERED AS {~~ts32-623~~ts32-654Package 2};

btsSiteMgrBasicPackageBehaviour BEHAVIOUR
DEFINED AS
"The 'BtsSiteMgr' managed object contains site specific information for a BTS site.";

5.2.3 btsSiteMgrGeoPositionPackage

btsSiteMgrGeoPositionPackage PACKAGE
BEHAVIOUR
btsSiteMgrGeoPositionPackageBehaviour;
ATTRIBUTES
longitude GET-REPLACE,
latitude GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 3};

btsSiteMgrGeoPositionPackageBehaviour BEHAVIOUR
DEFINED AS
"This package contains the attributes describing the geographic position of a BTS site.";

5.2.4 gsmCellBasicPackage

gsmCellBasicPackage PACKAGE
BEHAVIOUR

gsmCellBasicPackageBehaviour;
ATTRIBUTES
gsmCellId GET;
REGISTERED AS {~~ts32-623~~ts32-654Package 4};

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

5.2.5 gsmCellMandatoryPackage

gsmCellMandatoryPackage PACKAGE
BEHAVIOUR
gsmCellMandatoryPackageBehaviour;
ATTRIBUTES
cellIdentity GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": cellAllocation GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode GET-REPLACE,
"3GPP TS ~~32.622-4~~32.644: 6.2001": lac GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": tsc GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": rxLevAccessMin GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": msTxPwrMaxCCH GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": hoppingSequenceNumber GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": plmnPermitted GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 5};

gsmCellMan~~a~~datoryPackageBehaviour 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~~32.644: 6.2001": rac GET-REPLACE,
racc GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 6};

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

5.2.7 externalGsmCellBasicPackage

externalGsmCellBasicPackage PACKAGE
BEHAVIOUR
externalGsm~~Utran~~CellBasicPackageBehaviour;
ATTRIBUTES
externalGsmCellId GET;
REGISTERED AS {~~ts32-623~~ts32-654Package 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~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode GET-REPLACE,
"3GPP TS ~~32.622-4~~32.644: 6.2001": lac GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bcchFrequency GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 8};

externalGsmCellMan~~a~~datoryPackageBehaviour 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~~3GPP TS 32.644 Release 4": relationType GET-REPLACE,

"~~3GPP TS 32.622: 6.2001~~3GPP TS 32.644 Release 4": adjacentCell GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 9};

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

5.2.10 gsmRelationOptionalPackage

gsmRelationOptionalPackage PACKAGE
BEHAVIOUR
gsmRelationOptionalPackageBehaviour;
ATTRIBUTES
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bsIdentityCode GET-REPLACE,
"3GPP TS ~~32.622-4~~32.644: 6.2001": lac GET-REPLACE,
"~~GSM 12.20: 6. 1996~~ETS 300 622: JUNE 1996 (GSM 12.20 VERSION 4.2.1)": bcchFrequency GET-REPLACE;
REGISTERED AS {~~ts32-623~~ts32-654Package 10~~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~~TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
bssFunctionIdBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 1};

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

5.3.2 btsSiteMgrId

btsSiteMgrId ATTRIBUTE

WITH ATTRIBUTE SYNTAX ~~TS32-106-7TypeModule~~TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
btsSiteMgrIdBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 2};

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

5.3.3 longitude

longitude ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-623~~TS32-654TypeModule.Longitude;
MATCHES FOR EQUALITY;
BEHAVIOUR
longitudeBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 3};

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

5.3.4 latitude

latitude ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-623~~TS32-654TypeModule.Latitude;
MATCHES FOR EQUALITY;
BEHAVIOUR
latitudeBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 4};

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

5.3.5 gsmCellId

gsmCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-106-7TypeModule~~TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gsmCellIdBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 5};

gsmCell~~btsSiteMgr~~IdBehaviour BEHAVIOUR
DEFINED AS

" Cell Identity (Ref GSM 03.03).";

5.3.6 cellIdentity

cellIdentity ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~GSM1220TypeModule~~TS32-654TypeModule.CellIdentity;
MATCHES FOR EQUALITY;
BEHAVIOUR
cellIdentityBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 6};

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

5.3.7 racc

racc ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-62~~TS32-654~~2~~TypeModule.Racc;
MATCHES FOR EQUALITY;
BEHAVIOUR
raccBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 7};

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

5.3.8 gsmRelationId

gsmRelationId ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-106-7TypeModule~~TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
gsmRelationIdBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 8};

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

5.3.9 externalGsmCellId

externalGsmCellId ATTRIBUTE
WITH ATTRIBUTE SYNTAX ~~TS32-106-7TypeModule~~TS32-654TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR

externalGsmCellIdBehaviour;
REGISTERED AS {~~ts32-623~~ts32-654Attribute 9};

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

5.~~4~~3 Name Binding

5.~~4~~3.1 bssFunction - managedElement

bssFunction-managedElement NAME BINDING
SUBORDINATE OBJECT CLASS bssFunction;
NAMED BY SUPERIOR OBJECT CLASS "~~3GPP TS 32.620-4: 6.2001~~3GPP TS 32.624 Release 4": managedElement;
WITH ATTRIBUTE bssFunctionId;
BEHAVIOUR
bssFunction-managedElementBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-623~~ts32-654NameBinding 1};

bss~~rnc~~Function-managedElementBehaviour BEHAVIOUR
DEFINED AS
"The name binding represents a relationship in which a managedElement contains and controls a bssFunction. When automatic instance naming is used, the choice of name bindings is left as a local matter.";

5.~~4~~3.2 btsSiteMgr - bssFunction

btsSiteMgr-bssFunction NAME BINDING
SUBORDINATE OBJECT CLASS btsSiteMgr;
NAMED BY SUPERIOR OBJECT CLASS bssFunction;
WITH ATTRIBUTE btsSiteMgrId;
BEHAVIOUR
btsSiteMgr-bssFunctionBe~~a~~haviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {~~ts32-623~~ts32-654NameBinding 2};

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

5.43.3 gsmCell - btsSiteMgr

gsmCell-btsSiteMgr NAME BINDING
SUBORDINATE OBJECT CLASS gsmCell;
NAMED BY SUPERIOR OBJECT CLASS btsSiteMgr;
WITH ATTRIBUTE gsmCellId;
BEHAVIOUR
gsmCell-btsSiteMgrBeahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623ts32-654NameBinding 3};

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

5.43.4 gsmRelation - gsmCell

gsmRelation-gsmCell NAME BINDING
SUBORDINATE OBJECT CLASS gsmRelation;
NAMED BY SUPERIOR OBJECT CLASS gsmCell;
WITH ATTRIBUTE gsmRelationId;
BEHAVIOUR
gsmRelation-gsmCellBeahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623ts32-654NameBinding 4};

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

5.43.5 externalGsmCell - subNetwork

externalGsmCell-subNetwork NAME BINDING
SUBORDINATE OBJECT CLASS externalGsmCell;
NAMED BY SUPERIOR OBJECT CLASS "3GPP TS 32.620-4: 05.20013GPP TS 32.624 Release 4": subNetwork;
WITH ATTRIBUTE externalGsmCellId;
BEHAVIOUR
externalGsmCell-subNetworkBeahaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;

DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-623ts32-654NameBinding 5};

externalGsmUtranCell-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.";

5.43.6 vsDataContainer - bssFunction

vsDataContainer-bssFunction NAME BINDING
SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.20013GPP TS 32.624 Release 4": 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 {ts32-623ts32-654NameBinding 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 32.61402-4.";

5.43.7 vsDataContainer - btsSiteMgr

vsDataContainer-btsSiteMgr NAME BINDING
SUBORDINATE OBJECT CLASS "3GPP TS 32.620-4: 06.20013GPP TS 32.624 Release 4": 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 {ts32-623ts32-654NameBinding 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 32.6140~~2-4~~.";

5.~~4~~3.8 vsDataContainer - gsmCell

vsDataContainer-gsmCell NAME BINDING
SUBORDINATE OBJECT CLASS "~~3GPP TS 32.620-4: 06.2001~~3GPP TS 32.624 Release 4":
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 {~~ts32-623~~ts32-654NameBinding 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 32.6140~~2-4~~.";

5.~~4~~3.9 vsDataContainer - gsmRelation

vsDataContainer-gsmRelation NAME BINDING
SUBORDINATE OBJECT CLASS "~~3GPP TS 32.620-4: 06.2001~~3GPP TS 32.624 Release 4":
vsDataContainer:;
NAMED BY SUPERIOR OBJECT CLASS gsmRelation;
WITH ATTRIBUTE vsDataContainerId;
BEHAVIOUR
vsDataContainer-gsm~~Cell~~RelationBehaviour;
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 32.6140~~2-4~~.";

6 ASN.1 Definitions

~~TS32-623~~TS32-654TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts-32-65~~423~~ (65~~423~~)
informationModel (0) asn1Module (2) version1 (1)}

DEFINITIONS IMPLICIT TAGS ::=
BEGIN
--EXPORTS everything

~~--~~IMPORTS
GeneralObjectId
FROM TS32-624TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts32-624 (624)
informationModel (0) asn1Module (2) version1 (1)}
Rcc FROM TS32-644TypeModule {ccitt (0) identified-organization (4) etsi (0)
mobileDomain (0) umts-Operation-Maintenance (3) ts-32-644 (644)
informationModel (0) asn1Module (2) version1 (1)}
CellIdentity
FROM GSM1220TypeModule {ccitt (0) identified-organization (4) etsi (0) mobileDomain (0) gsm-Operation-Maintenance (3) gsm-12-20 (20) informationModel (0) asn1Module (2) asn1TypeModule (0)}

-- 3GPP TS 32.65~~423-4~~ related Object Identifiers

baseNodeUMTS OBJECT IDENTIFIER ::= {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0) umts-Operation-Maintenance(3)}
~~ts32-623~~ts32-654 OBJECT IDENTIFIER ::= { baseNodeUMTS ts-32-65~~423~~(65~~423~~)}
~~ts32-623~~ts32-654InfoModel OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654 informationModel(0)}

~~ts32-623~~ts32-654ObjectClass OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel managedObjectClass(3)}
~~ts32-623~~ts32-654Package OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel package(4)}
~~ts32-623~~ts32-654Parameter OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel parameter(5)}
~~ts32-623~~ts32-654NameBinding OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel nameBinding(6)}
~~ts32-623~~ts32-654Attribute OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel attribute(7)}
~~ts32-623~~ts32-654Action OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel action(9)}
~~ts32-623~~ts32-654Notification OBJECT IDENTIFIER ::= { ~~ts32-623~~ts32-654InfoModel notification(10)}

-- Start of 3GPP SA5 own definitions

Longitude ::= INTEGER~~GraphicString~~
Latitude ::= INTEGER~~GraphicString~~
Racc ::= ~~Integer~~INTEGER

END -- of TS32-6542~~22~~TypeModule