Source: SA5

Title: R99 CRs to Configuration Management; (32.106-series)

Document for: Approval

Agenda Item: 7.5.3

Doc- 1st- Level	Doc- 2nd- Level	Spec	CR	R I e v	Phase	Subject	Cat	Version- Current	Version- New	Workitem
SP- 010284	S5- 010331	32.106-5	003		R99	Correction of R99 filter definition which is inconsistent with the CORBA SS	F	3.1.0	3.2.0	OAM-CM
SP- 010284	S5- 010335	32.106-5	004	_ I	R99	Correction of UTRAN attributes	F	3.1.0	3.2.0	OAM-CM
SP- 010284	S5- 010336	32.106-7	003	I	R99	Correction of UTRAN attributes	F	3.1.0	3.2.0	OAM-CM
SP- 010284	S5- 010337	32.106-6	009	I	R99	Correction of UTRAN attributes	F	3.1.0	3.2.0	OAM-CM
SP- 010284	S5- 010231	32.106-6	800	I	R99	Reposition "#pragma prefix" directive	F	3.1.0	3.2.0	OAM-CM
SP- 010284	S5- 010338	32.106-8	001	I	R99	Correct errors in DN name convention for Managed Objects	F	3.1.0	3.2.0	OAM-CM

Dependency of CRs

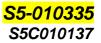
item	Doc-2nd-Level	Spec	CR	Condition for CR approval
Α	S5-010335	32.106-5	004	
В	S5-010337	32.106-6	009	only when A above is approved
С	S5-010336	32.106-7	003	only when A above is approved

	CHANGE REQUEST
* 32	# rev - # Current version: 3.1.0
For HELP on u	sing this form, see bottom of this page or look at the pop-up text over the \ symbols.
Proposed change a	nffects: 第 (U)SIM ME/UE Radio Access Network Core Network
Title: ₩	Correction of R99 filter definition which is inconsistent with the CORBA SS.
Source: #	SA5
Work item code: ₩	Date: ₩ 01/06/2001
Category: Ж	F Release: Release: Release: Release:
	Use one of the following categories: F (essential 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) RP9 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
Reason for change	The filter definition in the operation getMoAttributes of the Basic CM IRP IS (in 32.106-5) is inconsistent with the corresponding CORBA SS (32.106-6) filter definition. The CORBA SS defines a filter which is 'empty' (returns "TRUE"), while the filter definition in the IS requires a specific filter. This is due to the fact that when the CORBA SS was finally reviewed for R99 at meeting #18, the CM group could not reach an agreement on the CORBA definition of the filter. Therefore, the only way to reach agreement on the CORBA SS for R99 was to "remove" the filter i.e. make it empty/transparent. In that process, it was not detected that the IS document was inconsistent with that change. Thus, the only realistic solution to this inconsistency now, is to correct the IS to also allow for a empty filter in the CORBA SS.
Summary of chang	E: ** Keep the filter parameter of the operation getMoAttributes as a Mandatory parameter, but describe its value as an optional recommendation for the SS to follow.
Consequences if not approved:	## The IS and the CORBA SS will be inconsistent, leading to confusion for CORBA SS vendors/designers and risk for errors in the implementation.
Clauses affected:	# 6.2.2.1, table 1.
Other specs affected:	# Other core specifications # Test specifications O&M Specifications
Other comments:	x

Table 1: Parameters of getMoAttributes

Name	Qualifier	Description
baseObjectInstance	Input, M	The MO where the search starts. This is a full Distinguished Name according to 3GPP TS 32.106-8 [13].
scope	Input, M	This 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: • the base object alone (default); • the n-th level subordinates of the base object; • the base object and all of its subordinates down to and including the n-th level;
		the base object and all of its subordinates.
filter	Input, M	This 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 actual syntax and capabilities of the filter is Solution Set specific. However, each Solution Set should-support a filter consisting of one or several assertions that may be grouped using the logical operators AND, OR and NOT. Each assertion is a logical expression of attribute existence, attribute value comparison ("equal to X, less than Y" etc.) and MO Class.
attributeListIn	Input, M	This parameter identifies the attributes to be returned by this operation. In R99, only the semantics "Return all attributes" shall be supported. An empty list means "Return all attributes". For future releases the possibility to specify a list of attributes is expected.
managedObjectClass	Output, M	For each returned MO: The class of the MO.
managedObjectInstan ce	Output, M	For each returned MO: The name of the MO. This is a full Distinguished Name according to 3GPP TS 32.106-8 [13].
attributeListOut	Output, M	For each returned MO: A list of name/value pairs for the MO attributes.
status	Output, M	(a) Operation succeeded, or (b) Operation failed because of specified or unspecified reason.

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	CHANGE REQUEST	-orm-v3
* 32	2.106-5 CR 004	
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Title: 第	Correction of UTRAN attributes	
Source: #	SA5	
Work item code: ₩	OAM-CM Date: # 01/06/2001	
Category: Ж	F Release: Release: Release: Release:	
	Use one of the following categories: F (essential 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)	s:
Reason for change	2: 第 1. The change for the alignment of the object model to the UTRAN architectures was not complete.	ıre
Summary of chang	Correction of the name of the association AssociatedWith-1 to AssociatedWith The AssociatedWith should become mandatory.	th.
Consequences if not approved:	The specification is not consistent. A risk for not maintaining multivendor over N.	ltf-
Clauses affected:	₩ 6.4.2.4 and 6.4.3.2	
Other specs affected:	Other core specifications Test specifications O&M Specifications CR32.106-6-009_S5-010337-UTRANmodel. CR32.106-7-003_S5-010336-UTRANmodel.	
Other comments:	*	

6.4.2.4 MOC IubLink

The 'Iub link' managed object is the logical link to a NodeB as seen from the RNC. For more information about the RNC, see 3GPP TS 23.002 [15].

It inherits from ManagedFunction.

Table 1: Attributes of lubLink

Name	Qualifier	Description
iubLinkId	READ-ONLY, M	An attribute whose 'name+value' can be used as an RDN when naming
		an instance of this object class. This RDN uniquely identifies the object
		instance within the scope of its containing (parent) object instance.
userLabel	READ-ONLY, M	A user-friendly (and user assigned) name of the associated object.
		Inherited from ManagedFunction.
iubLink-UtranCell	READ-ONLY,	The value of this attribute shall be a list of the DN(s) of the related
	<u>ӨМ</u>	UtranCell instance(s). This is a reference attribute modelling the role (of
		the association AssociatedWith-1) that this lubLink is associated with 0-
		N UtranCells.
iubLink-NodeBFunction	READ-ONLY, M	The value of this attribute shall be the DN of the related NodeBFunction
		instance. This is a reference attribute modelling the role (of the
		association ConnectedTo) that this lubLink is connected to 0-1
		NodeBFunction.

Table 2: Notifications of IubLink

Name	Qualifier	Notes
notifyAckStateChanged	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyAttributeValueChange	0	
notifyChangedAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyClearedAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyNewAlarm	See Alarm IRP (3GPP TS 32.111-2 [11])	
notifyObjectCreation	0	
notifyObjectDeletion	0	

6.4.3.2 Association AssociatedWith-1 (OM)

This bi-directional association models the relationship between the IubLink and UtranCell. It has two roles, named IubLink-UtranCell and UtranCell-IubLink. These two roles model each MOC's association with the other MOC. This association is optional, but under the condition that at least one of the associations AssociatedWith-1 and AssociatedWith-2 shall be present in each instance of Utran Cell. Each role is in the MOC definition mapped to a reference attribute with the same name.

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Clauses affected:	ж ,	Annex	A, Annex I	3								
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Other comments:	×											

Annex A (normative): CORBA IDL, Access Protocol

```
#ifndef BasicCmIRPSystem_idl
#define BasicCmIRPSystem_idl

| #pragma prefix "3gppsa5.org"

#include "CommonIRPConstDefs.idl"

| #pragma prefix "3gppsa5.org"

module BasicCmIRPSystem
{
    /**
```

Annex B (normative): CORBA IDL, Notification Definitions

```
#ifndef NotificationDefs_idl
#define NotificationDefs_idl

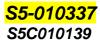
#pragma prefix "3gppsa5.org"

#include <TimeBase.idl> // CORBA Time Service
#include <NotificationIRPConstDefs.idl>

#pragma prefix "3gppsa5.org"

module BasicCmIRPSystem
{
    module NotificationDefs
    {
        //**
```

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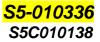
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Reason for chang	e: #		hange f		alignm	ent of	the	obje	ct mo	odel to	the U	TRAN	l archit	ectu	re was
Summary of chan	ge: Ж	The A	ssociat	tedWith	should	d bec	ome	mar	ndato	ry.					
Consequences if not approved:	ж			ation is r over Itf-N		nsiste	nt w	ith 32	2.106	6-5. A	risk for	not n	naintai	ning	
Clauses affected:	¥	6.5.2	2.4												
Other specs affected:	x	Te	est spec	re speci cification ecification	าร	ns	¥								
Other comments:	ж	This C	R is dep	pendent o	on the	appro	val o	f CR3	32.10	6-5-00	4_S5-0	10335	-UTRA	Nm	odel.

6.5.2.4 MOC IubLink

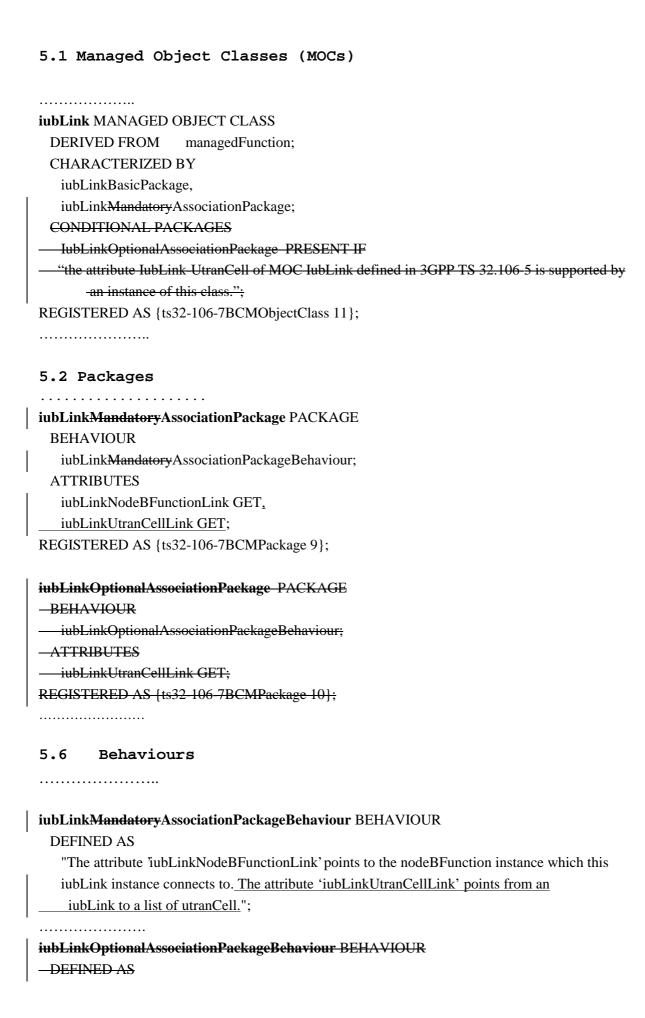
Table 21: Mapping from NRM MOC IubLink attributes and associations to SS equivalent MOC IubLink attributes

NRM Associations/Attributes of MOC IubLink in 3GPP TS 32.106-5 [4]	SS Attributes	SS Type	Qualifier
iubLinkId	iubLinkId	string	Read-Only, M
userLabel	userLabel	string	Read-Only, M
AssociatedWith/ iubLink-UtranCell	iubLinkUtranCell	BasicCmIRPSystem::Attribu teTypes::MOReferenceSet	Read-Only, OM
ConnectedTo/ iubLink-NodeBFunction	iubLinkNodeBFunc tion	BasicCmIRPSystem::Attribu teTypes::MOReference	Read-Only, M

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Proposed change a	ffects: 第 (U)SIM ME/UE	Radio Access Network X Core Network
Title: 第	Correction of UTRAN attributes	
Source: 第	SA5	
Work item code: ₩	OAM-CM	Date: 第 01/06/2001
Category: 第	F	Release: # R99
	Use one of the following categories: F (essential correction) A (corresponds to a correction in an early (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories found in 3GPP TR 21.900.	R97 (Release 1997) R98 (Release 1998) R99 (Release 1999)
Reason for change:	# To align the Basic CM IRP CMIP SS according to the CR in S5C010137.	3 (32.106-7) with the changes in 32.106-5
Summary of change	e:	nk" becomes mandatory.
Consequences if not approved:	* The specification is not consistent. A N.	A risk for not maintaining multivendor over ltf-
Clauses affected:	₩ <mark>5.1, 5.2 and 5.6</mark>	
Other specs affected:	Contractions Test specifications O&M Specifications	
Other comments:	# This CR is dependent on the approval	of CR32.106-5-004_S5-010335-UTRANmodel.



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

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CHANGE REQUEST						
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Proposed change affects: # (U)SIM ME/UE Radio Access Network Core Network						
Title: 第 (Correct errors in DN na	me convention fo	r Managed	Objects		
Source: # 5	SA5					
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Category: # F			R	elease: # R9	99	
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Reason for change:	names are no long in naming (that Mo the Distinguished	ger valid. Second DC names can't s	ly, the curre tart with 'IRI	ent specification P') that is no lo	uses a restriction nger valid. Thirdly,	
Summary of change:	Remove direct references to MOCs in Annex A - use rules instead. Remove the restriction that MOC names can't start with 'IRP'. Correct the casing in the Annex B examples.					
Consequences if not approved:	# The IRPManager a				may think that the	
Clauses affected:	策 <mark>7.1.3, Annex A, Ar</mark>	nnex B				
Other specs affected:	Other core specification O&M Specification	ons				
Other comments:						

7.1.3 Converting AttributeTypeAndValue

The AttributeTypeAndValue is encoded as the string representation of the AttributeType, followed by an equals character ('=', ASCII 61), followed by the string representation of the AttributeValue.

If the AttributeType is published in Table A.1 of Annex A, then the type name string from that table is used. If the AttributeType is not in the published table, implementation is free to use any string as long as the string does not begin with "IRP".

Although X.500 ASN.1 AttributeValue and AttributeType support wide range of character representation, this specification supports a restrictive set of characters according to subclause 7.2.

String representation of AttributeValue allows character escape mechanism such as the use of a backslash followed by two hex digits to replace a character in a string. String representation of AttributeType does not allow character escape mechanism.

EXAMPLE:

"CN=Before\ODAfter,O=Test,C=GB. In this example, the backslash and the two hex digits form a single byte in the code of the escaped character. The backslash followed by "OD" indicates a carriage return. See Annex B for a rule for MO designers to avoid ambiguity concerning the AttributeType of a DN string.

Annex B (normative): Rule for MO Designers regarding AttributeType interpretation

NOTE: This annex is normative for users of string representation.

This annex discusses the two possible interpretations for the AttributeType of the DN string and recommends a rule for MO designers to avoid ambiguity concerning its usage. It identifies the protocol environment(s) under which each interpretation functions. It then recommends a rule for designing MO classes such that one DN string, regardless of protocol environment (therefore, regardless of interpretation used), will result in the unique reference to the identical network resource.

First interpretation

ITU-T Recommendation X.500 [2] uses the AttributeType (defined for use as the first component of the AttributeTypeAndValue of a RDN, see subclause 3.1.6) to identify one attribute of the subject MO for naming purpose. This AttributeType is called the *naming attribute* to distinguish itself from other attributes that may be present in the MO.

Suppose the following is the MO class definition in pseudo notation and this MO class is inherited from root.

```
Class Bsc {
   Attribute id;
   Attribute ..}
```

Suppose further that the naming attribute is id.

If this (first) interpretation is used for constructing the DN string, then the DN will be "..., id=123". MO class name cannot be derived from the DN string. The value of the AttributeValue contains the value of the naming attribute.

Second interpretation

In CORBA protocol environment, it is preferable to use the following interpretation.

The AttributeType (defined for use as the first component of the AttributeTypeAndValue of a RDN) is used to identify the MO class.

If this interpretation is used for constructing the DN string, then the DN will be "..., Bsc=123". The name of the naming attribute cannot be derived from the DN string. The value of the AttributeValue contains the value of the naming attribute.

Rule

Given the two interpretations, a DN reader cannot know how to interpret the AttributeType, i.e. if the AttributeType identifies class or naming attribute. To avoid ambiguity, the following rules shall apply:

- □If AttributeType of a naming attribute is not a concatenation of MO class name and "Id", then the DN writer shall use "...,yyy.zzz=123,.." where "yyy" is the MO class name and "zzz" is the naming attribute. For example, if "Bsc" is the MO class name and if its naming attribute is "SerialNumber", then the DN shall be ",,,Bsc.serialNumber=123,..".
- If AttributeType of a naming attribute is a concatenation of MO class name and "Id", then the DN writer shall use "...,xxx=123,.." where "xxx" is the MO class name. For example, if "Bsc" is the MO class name and if its naming attribute is "BscId", then the DN shall be ",,,Bsc=123,..".
- If AttributeType of a naming attribute is not a concatenation of MO class name and "Id" (ignoring case for both), then the DN shall use "...,Yyy.zzz =123,.." where "Yyy" is the MO class name and "zzz" is the naming attribute (preserving case for both). For example, if "Bsc" is the MO class name and if its naming attribute is "serialNumber", then the DN shall be ",,,Bsc.serialNumber=123,..".

• If AttributeType of a naming attribute is a concatenation of MO class name and "Id" (ignoring case for both), then the DN shall use "...,Xxx=123,.." where "Xxx" is the MO class name (preserving case). For example, if "Bsc" is the MO class name and if its naming attribute is "bscId", then the DN shall be ",,,Bsc=123,..".

Annex A (normative): Mapping of RDN AttributeType to Strings

NOTE: This annex is normative for users of string representation.

AttributeType of RDN are mapped into strings for use in the DN string representation. This annex specifies the mapping.

The AttributeType shall include all MO classes defined in the Network Resource- Model (NRM) of 3G TS 32.106-5 [9].

There is one AttributeType that is not defined in NRM of 3G TS 32.106-5 [9]. This special AttributeType is used to denote the domain component of the DNS. The following partial DN string representations are examples to illustrate the valid use of "DC" strings for the three DNS domain components of "lme.companyZ.se".

- DC=se.companyZ.lme,..
- DC=se, DC=companyZ, DC=lme, ...
- DC=se,DC=companyZ.lme,..
- DC=se.companyZ,DC=lme,..

Table A.1: Example of RDN AttributeType Strings

String	AttributeType		
DC	Domain component of DNS		
G3SubNetwork	MO class name G3SubNetwork defined in NRM of 3G TS 32.106-5 [9].		
ManagedElement	MO class name ManagedElement defined in NRM of 3G TS 32.106-5 [9].		
Cell	MO Class name Cell defined in NRM of 3G TS 32.106-5 [9].		
etc.	Other MO class names as defined in NRM or product-specific NRM (extension to standard		
	NRM).See note.		

Note: For each MO class name found in 3GPP set of specifications, its corresponding AttributeType String shall be identical to the class name with the leading character capitalised.