Source: **SA5 (Telecom Management)**

Title: **2 Rel-4/5 CR 32.624 (Configuration Management; Generic network resources IRP: CMIP solution set): Rel-4/5 alignment of OIDs of some attributes and name bindings**

Document for: **Approval**

Agenda Item: **7.5.3**

Doc-1st-Level	Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Doc-2nd-Level	Workitem
SP-030417	32.624	010	-	Rel-4	Rel-4/5 alignement of OIDs of some attributes and name bindings	F	4.4.0	S5-036776	OAM-CM
SP-030417	32.624	011	-	Rel-5	Rel-4/5 alignement of OIDs of some attributes and name bindings	F	5.0.0	S5-036777	OAM-CM

3GPP TSG-SA5 (Telecom Management) **S5-036776**
Meeting #34bis, Cork, Ireland, 14-18 July 2003

CR-Form-v7

CHANGE REQUEST

⌘ **32.624** **CR** **010** ⌘**rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network [X] Core Network [X]

Title:	⌘	Rel-4/5 alignement of OIDs (Object Identifier; ASN.1 datatype definition) of some attributes and name bindings
Source:	⌘	SA5 (olaf.pollakowski@siemens.com)
Work item code:	⌘	OAM-CM
Date:	⌘	05/09/2003
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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The attributes subNetworkId and vsDataContainerId have the same OID. Furthermore, the name bindings subNetwork – subNetwork, notificationControlId – irpAgent and alarmControl – irpAgent are missing The allowed alarm types are restricted for some MOCs. This restriction is not imposed by TS 32.622.
Summary of change:	⌘	The OIDs are corrected and the missing name bindings are added. The restrictions on the allowed alarm types are removed.
Consequences if not approved:	⌘	The wrong OIDs will cause interoperability problems and due to the missing name bindings it is not possible to implement the Solution Set.

Clauses affected:	⌘	2, 4, 5.2.8, 5.2.11, 5.3.3, 5.5			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
		X		O&M Specifications	Rel-5 32.624
Other comments:	⌘	Rel-5 CR in S5-036777.			

Change in Clause 2

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TS 32.101: "3G Telecom Management principles and high level requirements".

[2] 3GPP TS 32.102: "3G Telecom Management architecture".

[3] 3GPP TS 32.304: "Telecommunication Management; Notificaion Management; Part 4: Notification Integration Reference Point; CMIP Solution Set".

[4] 3GPP TS 32.622: "Telecommunication Management; Configuration Management: Generic Network Resource Integration Reference Point: Network Resource Model".

[5] ITU-T Recommendation X.710 (1991): "Common Management Information Service Definition for CCITT Applications".

[6] ITU-T Recommendation X.721 (02/92): "Information Technology - Open Systems Interconnection – Structure of Management Information: Definition of Management Information".

[7] ITU-T Recommendation X.730 (01/92): "Information Technology - Open Systems Interconnection – Systems Management: Object Management Function".

[8] ITU-T Recommendation X.733 (02/92): "Information Technology - Open Systems Interconnection - Alarm Reporting Function".

[9] ITU-T Recommendation M.3100 (07/95): "Maintenance Telecommunications Management Network – Generic Network Information Model".

[10] 3GPP TS 32.111-4: " Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point (IRP): CMIP solution set".

End of Change in Clause 2

Change in Clause 4

4 Basic aspects

4.1 Explanation

A technology independent generic network resource model is defined in 3GPP TS 32.622 for 3G networks. This document provides an implementation of this generic network resource model by using CMIP technology.

4.2 VoidAllowed 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-class MOC(s) in the inheritance tree.

Table 1: Allowed alarms of MOCs

MOCs	Legal Alarms
subNetwork	EnvironmentalAlarm
managedElement	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
managementNode	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
managedFunction	communicationsAlarm processingErrorAlarm QualityofServiceAlarm
irpAgent	communicationsAlarm processingErrorAlarm
alarmControl (TS 32.111-4)	alarmListRebuiltAlarm

4.3 Mapping

The semantic of the Generic Network Resource Model is defined in 3GPP TS 32.622. 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
ManagedFunction	managedFunction
ManagementNode	managementNode
MeContext	meContext
BasicCmIRP	bcmControl
VsDataContainer	vsDataContainer
BulkCmIRP	bulkCmControl
AlarmIRP	alarmControl (3GPP TS 32.111-4 [10])
NotificationIRP	notificationControl (3GPP TS 32.304 [3])

4.3.2 Mapping of Attributes

Table 3: Mapping of Attributes

Attribute defined in 3GPP TS 32.622	Attribute defined in this CMIP SS
dnPrefix	systemTitle (ITU-T Recommendation X.721: 1992)
managedElementId	managedElementId
subNetworkId	subNetworkId
irpAgentId	irpAgentId
locationName	locationName (ITU-T Recommendation M.3100: 1995)
managedBy	meManagedBy
managedElementType	managedElementType
managementNodeId	managementNodeId
manages	mnManagesList
meContextId	meContextId
systemDN	not needed
userDefinedState	userDefinedState
userLabel	userLabel (ITU-T Recommendation M.3100: 1995)
vendorName	vendorName (ITU-T Recommendation M.3100: 1995)
vsDataContainerId	vsDataContainerId
vsDataType	vsDataType
vsData	vsData
vsDataFormatVersion	vsDataFormatVersion
bulkCmIrpId	bulkCmControlId
irpVersion	irpVersion
userDefinedNetworkType	userDefinedNetworkType
swVersion	swVersion

End of Change in Clause 4

Change in Clause 5.2.8

5.2.8 managementNodeBasicPackage

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

End of Change in Clause 5.2.8

Change in Clause 5.2.11

5.2.11 managedFunctionBasicPackage

managedFunctionBasicPackage PACKAGE
  BEHAVIOUR
    managed~~ment~~FunctionBasicPackageBehaviour;
  ATTRIBUTES
    "Recommendation M.3100: 1995" : userLabel GET-REPLACE;
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.";

End of Change in Clause 5.2.11

Change in Clause 5.3.3

5.3.3 vsDataContainerId

vsDataContainerId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    vsDataContainerIdBehaviour;
REGISTERED AS {ts32-624Attribute 100~~2~~};

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

End of Change in Clause 5.3.3

Change in Clause 5.5

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5.5 Name Binding

5.5.1 managedElement - meContext

managedElement-meContext NAME BINDING
  SUBORDINATE OBJECT CLASS managedElement;
  NAMED BY SUPERIOR OBJECT CLASS meContext;
  WITH ATTRIBUTE managedElementId;
  BEHAVIOUR
    managedElement-meContextBehaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 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.";

5.5.2 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 {ts32-624NameBinding 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.";

5.5.3 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 {ts32-624NameBinding 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.";

5.5.4 bulkCmControl - irpAgent

bulkCmControl-irpAgent NAME BINDING
SUBORDINATE OBJECT CLASS bulkCmControl;
NAMED BY SUPERIOR OBJECT CLASS irpAgent;
WITH ATTRIBUTE bulkCmControlId;
BEHAVIOUR
bulkCmControl-irpAgentBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 4};

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.";

5.5.5 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.";

5.5.6 irpAgent - managementNode

irpAgent - managementNode NAME BINDING
SUBORDINATE OBJECT CLASS irpAgent;
NAMED BY SUPERIOR OBJECT CLASS managementNode;
WITH ATTRIBUTE “3GPP TS 32.624: 6.2001”: irpAgentId;
BEHAVIOUR
irpAgent-managementNodeBehaviour;
CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 6};

irpAgent-managementNodeBehaviour 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.";

5.5.7 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 {ts32-624NameBinding 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 32.614.";

5.5.11 subNetwork - subNetwork

```
subNetwork-subNetwork NAME BINDING
   SUBORDINATE OBJECT CLASS
      subNetwork;
   NAMED BY SUPERIOR OBJECT CLASS
      subNetwork;
   WITH ATTRIBUTE
      subNetworkId;
   BEHAVIOUR
      subNetwork-subNetworkBehaviour;
   CREATE
      WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
   DELETE
      ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 11};


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

5.5.12 notificationControl - irpAgent

```
notificationControl-irpAgent NAME BINDING
   SUBORDINATE OBJECT CLASS
      notificationControl;
   NAMED BY SUPERIOR OBJECT CLASS
      irpAgent;
   WITH ATTRIBUTE
      "3GPP TS 32.304 Release 4": notificationControlId;
   BEHAVIOUR
      notificationControl-irpAgentBehaviour;
   CREATE
      WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
   DELETE
      ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 12};


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

5.5.13 alarmControl - irpAgent

```
alarmControl-irpAgent NAME BINDING
   SUBORDINATE OBJECT CLASS
      alarmControl;
   NAMED BY SUPERIOR OBJECT CLASS
      irpAgent;
   WITH ATTRIBUTE
      "3GPP TS 32.111-4 Release 4": alarmControlId;
   BEHAVIOUR
      alarmControl-irpAgentBehaviour;
   CREATE
      WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
   DELETE
      ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 13};


alarmControl-irpAgentBehaviour BEHAVIOUR
DEFINED AS
```

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

End of Change in Clause 5.5
End of Document

3GPP TSG-SA5 (Telecom Management) **S5-036777**
Meeting #34bis, Cork, Ireland, 14-18 July 2003

CR-Form-v7

CHANGE REQUEST

⌘ **32.624** **CR** **011** ⌘**rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☒

Title:	⌘	Rel-4/5 alignement of OIDs (Object Identifier; ASN.1 datatype definition) of some attributes and name bindings
Source:	⌘	SA5 (olaf.pollakowski@siemens.com)
Work item code:	⌘	OAM-CM
Date:	⌘	05/09/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The OIDs of some attributes and name bindings are different in Rel-4 and Rel-5.
Summary of change:	⌘	The OIDs of some attributes and name bindings are made identical to the OIDs used in Rel-4.
Consequences if not approved:	⌘	The change of OIDs between Rel-4 and Rel-5 will cause interoperability problems.

Clauses affected:	⌘	4, 5.3, 5.4

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
		X		O&M Specifications	Rel-4 32.624

Other comments:	⌘	Rel-5 CR in S5-036776.

Change in Clause 4

4 Basic aspects

4.1 Explanation

A technology independent generic network resource model is defined in 3GPP TS 32.622 for 3G networks. This document provides an implementation of this generic network resource model by using CMIP technology.

4.2 VoidAllowed 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-class MOC(s) in the inheritance tree.

Table 1: Allowed alarms of MOCs

MOCs	Legal Alarms
subNetwork	EnvironmentalAlarm
managedElement	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
managementNode	environmentalAlarm equipmentAlarm communicationsAlarm processingErrorAlarm
managedFunction	communicationsAlarm processingErrorAlarm QualityofServiceAlarm
irpAgent	communicationsAlarm processingErrorAlarm

4.3 Mapping

The semantic of the Generic Network Resource Model is defined in 3GPP TS 32.622. 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 from IOCs to MOCs

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

Table 2: Mapping of MOCs

Information Objects of the Generic NR IRP NRM	MOCs of this CMIP SS
ManagedElement	managedElement
SubNetwork	subNetwork
IRPAgent	irpAgent
ManagedFunction	managedFunction
ManagementNode	managementNode
MeContext	meContext
GenericIRP	no equivalence
VsDataContainer	no equivalence
Top	top (ITU-T X.721)

4.3.2 Mapping of Attributes

Table 3: Mapping of Attributes

Attribute defined in 3GPP TS 32.622	Attribute defined in this CMIP SS
DnPrefix	systemTitle (ITU-T Recommendation X.721: 1992)
ManagedElementId	managedElementId
SubNetworkId	subNetworkId
IrpAgentId	irpAgentId
LocationName	locationName (ITU-T Recommendation M.3100: 1995)
ManagedElementType	managedElementType
ManagementNodeId	managementNodeId
irpId	No equivalence
MeContextId	meContextId
SystemDN	No equivalence
UserDefinedState	userDefinedState
UserLabel	userLabel (ITU-T Recommendation M.3100: 1995)
VendorName	vendorName (ITU-T Recommendation M.3100: 1995)
VsDataContainerId	No equivalence
VsDataType	No equivalence
VsData	No equivalence
VsDataFormatVersion	No equivalence
ObjectClass	objectClass (ITU-T Recommendation X.721: 1992)
ObjectInstance	objectInstance (ITU-T Recommendation X.721: 1992)
UserDefinedNetworkType	userDefinedNetworkType
SwVersion	swVersion

End of Change in Clause 4

Change in Clause 5.3

5.3 Attributes

5.3.1 managedElementType

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

managedElementTypeBehaviour BEHAVIOUR

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

5.3.2 subNetworkId

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

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

5.3.3 Void

5.3.4 Void

5.3.5 Void

5.3.6 Void

5.3.7 Void

5.3.8 Void

5.3.93 userDefinedNetworkType

userDefinedNetworkType ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.UserDefinedNetworkType;
MATCHES FOR EQUALITY;
BEHAVIOUR
userDefinedNetworkTypeBehaviour;
REGISTERED AS {ts32-624Attribute 83};

userDefinedNetworkTypeBehaviour BEHAVIOUR
DEFINED AS

"Textual information regarding the type of network, e.g. UTRAN.”;

5.3.104 swVersion

swVersion ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.SwVersion;
MATCHES FOR EQUALITY;
BEHAVIOUR
swVersionBehaviour;
REGISTERED AS {ts32-624Attribute 94};

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).”;

5.3.115 managedElementId

managedElementId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule .GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
managedElementIdBehaviour;
REGISTERED AS {ts32-624Attribute 105};

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

5.3.126 userDefinedState

userDefinedState ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.UserDefinedState;
MATCHES FOR EQUALITY;
BEHAVIOUR
userDefinedStateBehaviour;
REGISTERED AS {ts32-624Attribute 116};

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

5.3.137 meManagedBy

meManagedBy ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectPointer;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    meManagedByBehaviour;
REGISTERED AS {ts32-624Attribute 127};

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

5.3.148 managementNodeId

managementNodeId ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    managmentNodeIdBehaviour;
REGISTERED AS {ts32-624Attribute 138};

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

5.3.159 mnManagesList

mnManagesList ATTRIBUTE
  WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectPointerList;
  MATCHES FOR EQUALITY;
  BEHAVIOUR
    mnManagesListBehaviour;
REGISTERED AS {ts32-624Attribute 149};

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

5.3.160 irpAgentId

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

BEHAVIOUR
irpAgentIdBehaviour;
REGISTERED AS {ts32-624Attribute 150};

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

5.3.171 supportedIRPs

supportedIRPs ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.SupportedIRPs;
MATCHES FOR EQUALITY;
BEHAVIOUR
supportedIRPsBehaviour;
REGISTERED AS {ts32-624Attribute 161};

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

5.3.182 meContextId

meContextId ATTRIBUTE
WITH ATTRIBUTE SYNTAX TS32-624TypeModule.GeneralObjectId;
MATCHES FOR EQUALITY;
BEHAVIOUR
meContextIdBehaviour;
REGISTERED AS {ts32-624Attribute 172};

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

5.3.19 Void

End of Change in Clause 5.3

Change in Clause 5.4

5.4 Name Binding

5.4.1 managedElement - meContext

managedElement-meContext NAME BINDING
  SUBORDINATE OBJECT CLASS managedElement;
  NAMED BY SUPERIOR OBJECT CLASS meContext;
  WITH ATTRIBUTE managedElementId;
  BEHAVIOUR
    managedElement-meContextBehaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 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.";

5.4.2 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 {ts32-624NameBinding 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.";

5.4.3 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 {ts32-624NameBinding 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.";

5.4.4 Voidsubnetwork - subNetwork

~~**subNetwork-subNetwork** NAME BINDING~~
~~ SUBORDINATE OBJECT CLASS **subNetwork;**~~
~~ NAMED BY SUPERIOR OBJECT CLASS **subNetwork;**~~
~~ WITH ATTRIBUTE **subNetworkId;**~~
~~ BEHAVIOUR~~
~~   **subNetwork-subNetwork**Behaviour;~~
~~ CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;~~
~~ DELETE ONLY-IF-NO-CONTAINED-OBJECTS;~~
~~REGISTERED AS {ts32-624NameBinding 4};~~

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

5.4.5 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.";

5.4.6 irpAgent - managementNode

irpAgent-managementNode NAME BINDING
  SUBORDINATE OBJECT CLASS irpAgent;
  NAMED BY SUPERIOR OBJECT CLASS managementNode;
  WITH ATTRIBUTE irpAgentId;
  BEHAVIOUR
    irpAgent-managementNodeBehaviour;
  CREATE WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
  DELETE ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 6};

irpAgent-managementNodeBehaviour 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.";

5.4.7 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 {ts32-624NameBinding 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.";

5.4.8 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.";

5.4.9 Void

5.4.10 Void

5.4.11 subNetwork - subNetwork

```
subNetwork-subNetwork NAME BINDING
   SUBORDINATE OBJECT CLASS
      subNetwork;
   NAMED BY SUPERIOR OBJECT CLASS
      subNetwork;
   WITH ATTRIBUTE
      subNetworkId;
   BEHAVIOUR
      subNetwork-subNetworkBehaviour;
   CREATE
      WITH-REFERENCE-OBJECT, WITH-AUTOMATIC-INSTANCE-NAMING;
   DELETE
      ONLY-IF-NO-CONTAINED-OBJECTS;
REGISTERED AS {ts32-624NameBinding 11};

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

5.4.12 Void

5.4.13 Void

5.4.14 Void

End of Change in Clause 5.4
End of Document