Source: **SA5 (Telecom Management)**

Title: **4 Rel-5 CR 32.622/32/42/52 (Fault Management Requirements/ IS/ CORBA SS) : Add Missing/ Remove redundant VsDataContainer Containment UML**

Document for: **Decision**

Agenda Item: **7.5.3**

Doc-1st-	Spec	CR	Ph	Subject	Cat	Ver	Doc-2nd	Status-	WI
SP-030643	32.622	010	Rel-5	Add Missing VsDataContainer for ManagedFunction & ManagedElement and Other IOCs (Version 2)	F	5.1.0	S5-038770	Agreed	OAM-NIM
SP-030643	32.632	010	Rel-5	Remove redundant VsDataContainer Containment UML - Now Covered by 32.622	F	5.4.0	S5-038771	Agreed	OAM-NIM
SP-030643	32.642	018	Rel-5	Remove redundant VsDataContainer Containment UML - Now covered by 32.622	F	5.2.0	S5-038792	Agreed	OAM-NIM
SP-030643	32.652	017	Rel-5	Remove redundant VsDataContainer Containment UML - Now covered by 32.622	F	5.2.0	S5-038793	Agreed	OAM-NIM

CR-Form-v7

CHANGE REQUEST

⌘ 32.622 CR 010 ⌘ rev - ⌘ Current version: 5.1.0 ⌘

*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:	⌘	Add Missing VsDataContainer for ManagedFunction & ManagedElement and Other IOCs (Version 2)
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-NIM
Date:	⌘	21/11/2003
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:	⌘	VsDataContainer containment is too limited. As a result all required vendor specific NRM data can not be fully managed over Itf-N.
Summary of change:	⌘	Include VsDataContainer containment under ManagedFunction and ManagedElement and Other Generic NRM IOCs.
Consequences if not approved:	⌘	It will not be possible to manage over Itf-N all necessary vendor specific data attributes associated with standard NRM IOCs.

Clauses affected:	⌘	6.1.2.1			
Other specs affected:	⌘	Y	N		
			X	Other core specifications	⌘
			X	Test specifications	
		X		O&M Specifications	32.632, 32.642, 32.652
Other comments:	⌘				

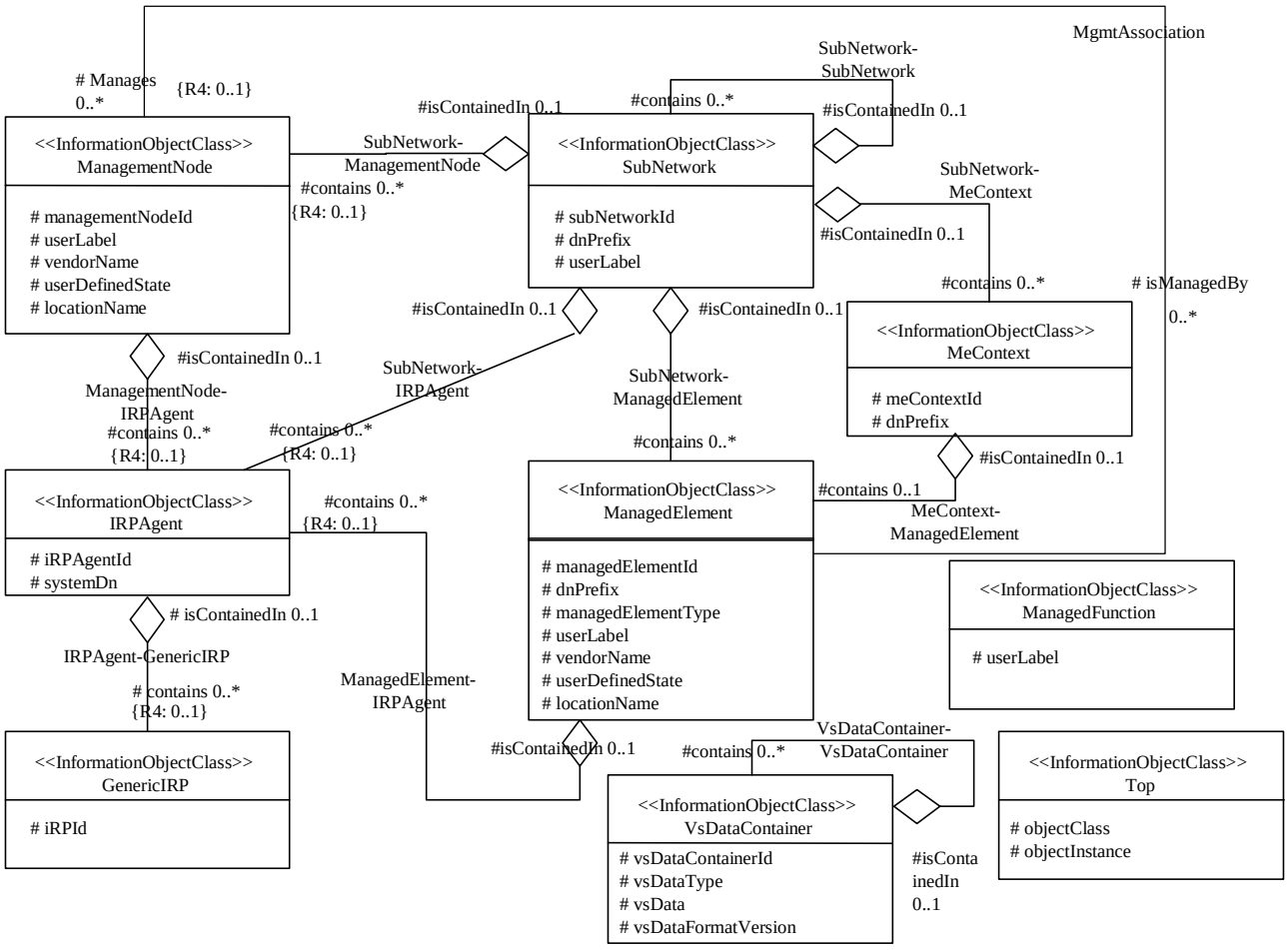
Change in Clause 6.1.2.1

6.1.2.1 Attributes and relationships

This sub-clause depicts the set of IOCs that encapsulate information relevant for this service. This sub-clause provides the overview of all information object classes in UML. Subsequent subclauses provide more detailed specification of various aspects of these information object classes.

Figure 6.1 shows the containment/naming hierarchy and the associations of the generic information object classes defined in this TS.

NOTE: The information object containment relationships are, in the diagram(s) below, indicated by UML "Aggregation by reference" ("hollow diamonds").



NOTE 1: ManagedElement may be contained in either a SubNetwork or an MeContext instance, or have no parent instance at all.

NOTE 2: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

NOTE 3: Each instance of the vsDataContainer shall only be contained under one MOC. The vsDataContainer can be contained under MOCs defined in other NRMs.

NOTE 4: If the configuration contains several instances of SubNetwork, exactly one SubNetwork instance shall directly or indirectly contain all the other SubNetwork instances.

NOTE 5: The SubNetwork instance not contained in any other instance of SubNetwork is referred to as "the root SubNetwork instance".

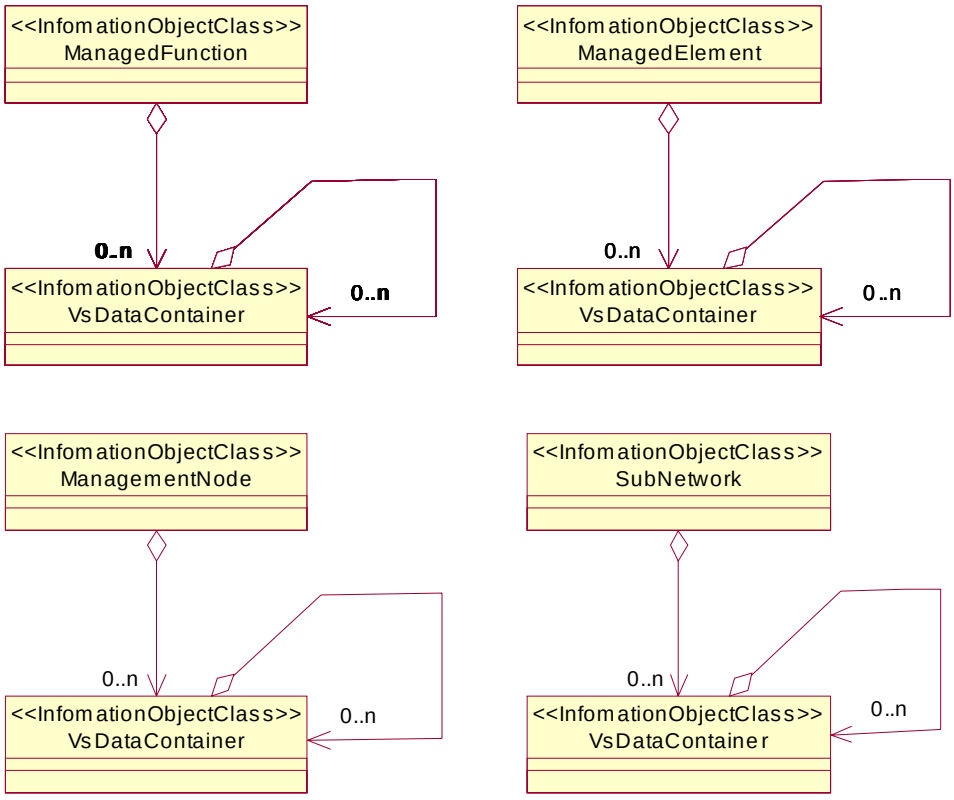
NOTE 6: ManagementNode shall be contained in the root SubNetwork instance.

NOTE 7: If contained in a SubNetwork instance, IRPAgent shall be contained in the root SubNetwork instance.

Figure 6.1: Generic NRM Containment/Naming and Association diagram

Each Managed Object is identified with a Distinguished Name (DN) according to 3GPP TS 32.300 [13] that expresses its containment hierarchy. As an example, the DN of a ManagedElement instance could have a format like:

SubNetwork=Sweden,MeContext=MEC-Gbg-1,ManagedElement=RNC-Gbg-1.



NOTE 1: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

NOTE 2: Each instance of the vsDataContainer shall only be contained under one IOC. The vsDataContainer can be contained under IOCs defined in other NRMs by virtue of inheritance from the GENERIC NRM.

Figure 6.2: vsDataContainer Containment/Naming and Association in GENERIC NRM diagram.

The vsDataContainer is only used for the Bulk CM IRP.

End of Change in Clause 14.4
End of Document

Annex B (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Sep 2001	S_13	SP-010479	001	--	Add the notification notifyComments in all MOCs that support alarms and correct the list of allowed members of the attribute managedElementType of the MOC managedElement	4.0.0	4.1.0
Sep 2001	S_13	SP-010479	002	--	Correction of Generic NRM Containment/Naming and Association diagram	4.0.0	4.1.0
Sep 2001	S_13	SP-010479	003	--	Correct description of swVersion attribute	4.0.0	4.1.0
Mar 2002	S_15	SP-020020	004	--	Addition of managedElementType value for GSM Radio Access Network support	4.1.0	4.2.0
Jun 2002	S_16	SP-020299	005	--	Remove R99-inherited restriction of self-containment for MOC SubNetwork	4.2.0	4.3.0
Sep 2002	S_17	SP-020488	006	--	Upgrade to Rel-5 (Add new IS method, MOC name convention)	4.3.0	5.0.0
Jun 2003	S_20	SP-030280	008	--	Correction of Notifications for IOCs	5.0.0	5.1.0

CR-Form-v7

CHANGE REQUEST

⌘ 32.632 CR 010 ⌘rev - ⌘ Current version: 5.4.0 ⌘

*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 ☐ Core Network ☒

Title:	⌘	Remove redundant VsDataContainer Containment UML - Now covered by 32.622
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-NIM
Date:	⌘	21/11/2003
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:	⌘	VsDataContainer containment is too limited. As a result all required vendor specific NRM data can not be fully managed over Itf-N.
Summary of change:	⌘	Other 32.622 CR includes VsDataContainer containment under ManagedFunction and ManagedElement. As a result remove redundant VsDataContainer UML from this specification.
Consequences if not approved:	⌘	It will not be possible to manage over Itf-N all necessary vendor specific data attributes associated with standard NRM IOCs. 32.632 will partially duplicate 32.622.
Clauses affected:	⌘	6.2.1

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments: ⌘ Dependent on VsDataContainer usage being extended by corresponding 32.622 CR.

Change in Clause 6.2.1

6.2.1 Attributes and relationships

This subclause depicts the set of IOCs that encapsulate information relevant for this service. This subclause provides the overview of all information object classes in UML. Subsequent subclauses provide more detailed specification of various aspects of these information object classes.

Figures 6.2.1.1 to 6.2.1.5 show the name-containment relation and other types of relations of the CN NRM.

NOTE 1: The name-containment relations between IOCs are indicated by UML "unidirectional aggregation by reference" ("hollow diamonds").

NOTE 2: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

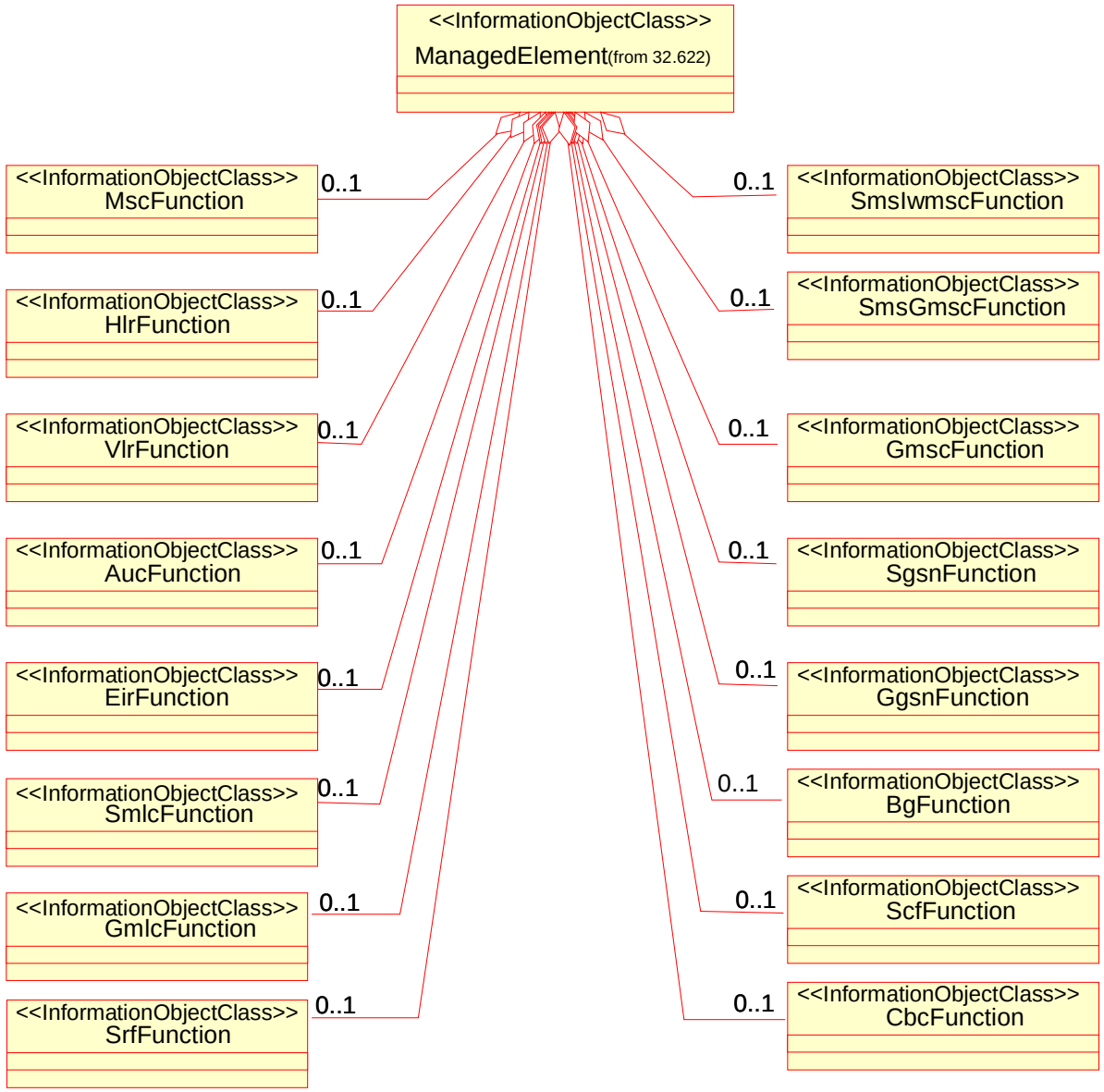


Figure 6.2.1.1: CN NRM Containment/Naming and Association (diagram 1)

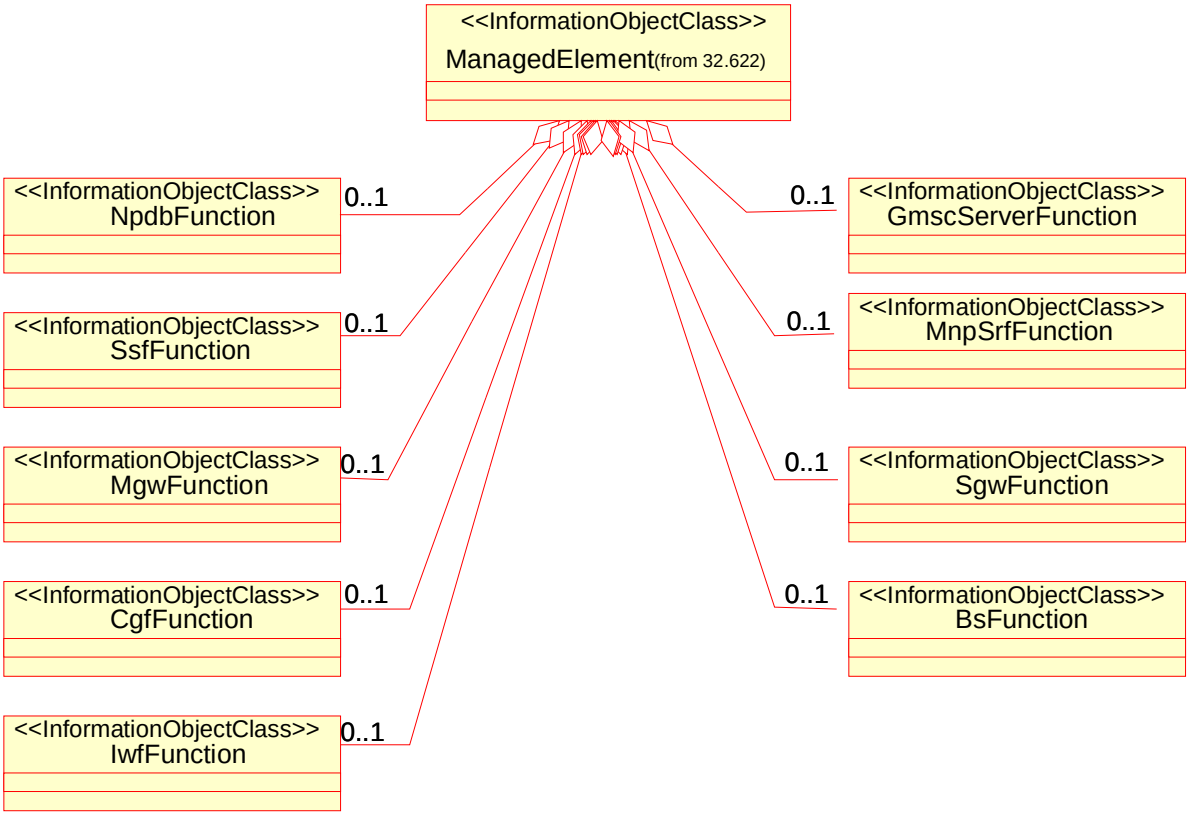


Figure 6.2.1.2: CN NRM Containment/Naming and Association (diagram 2)

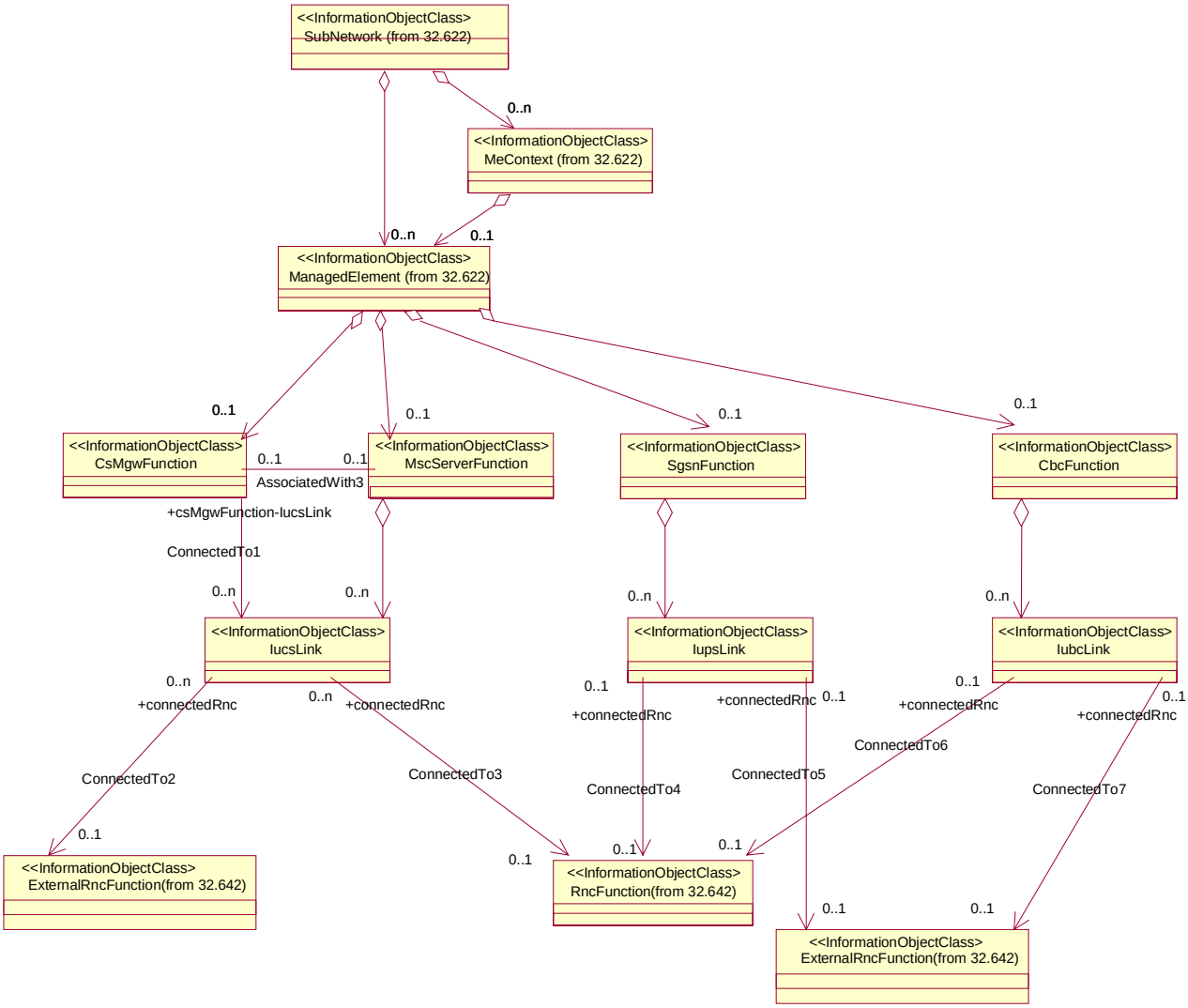
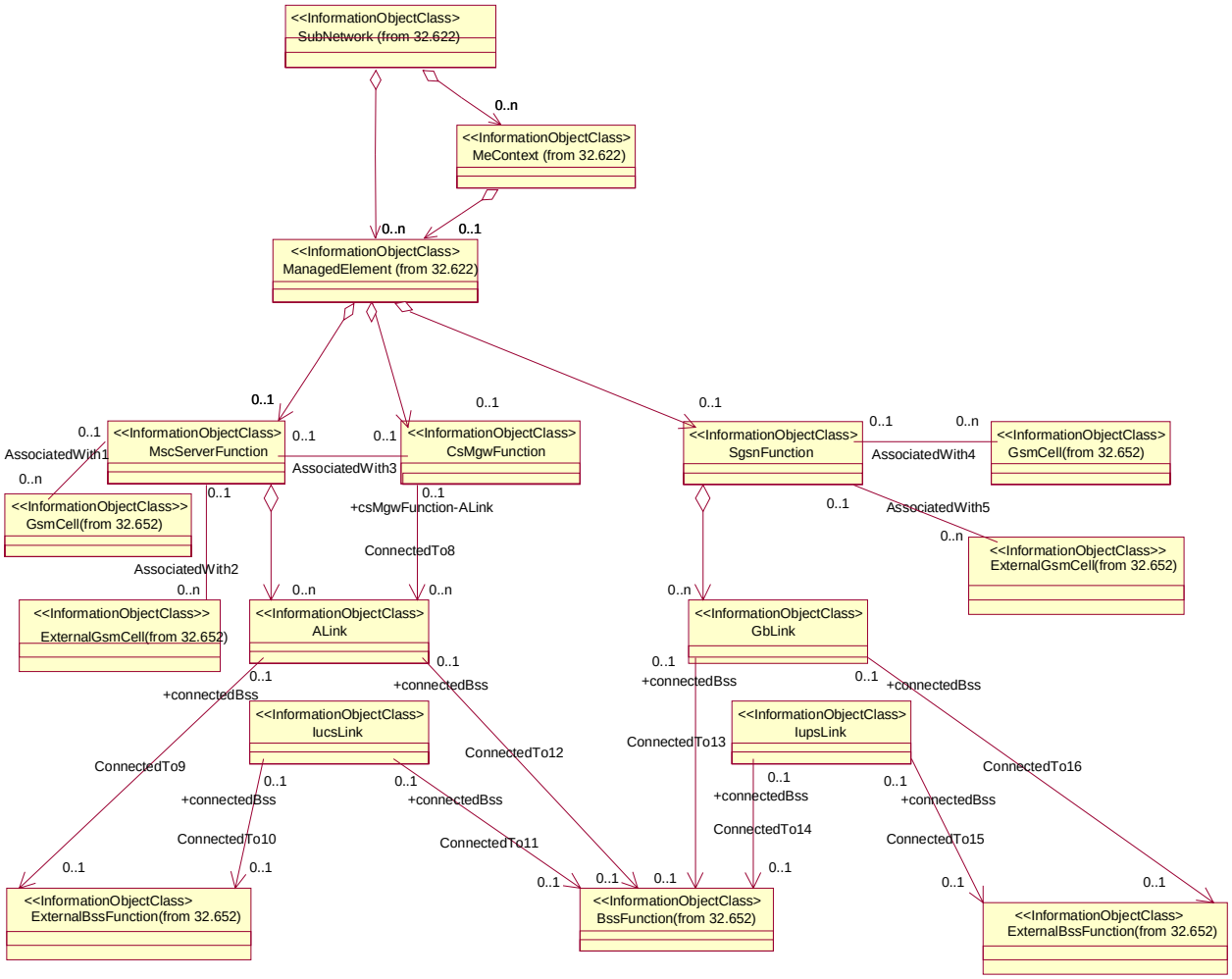


Figure 6.2.1.3: CN UTRAN NRM Containment/Naming and Association (diagram 3)



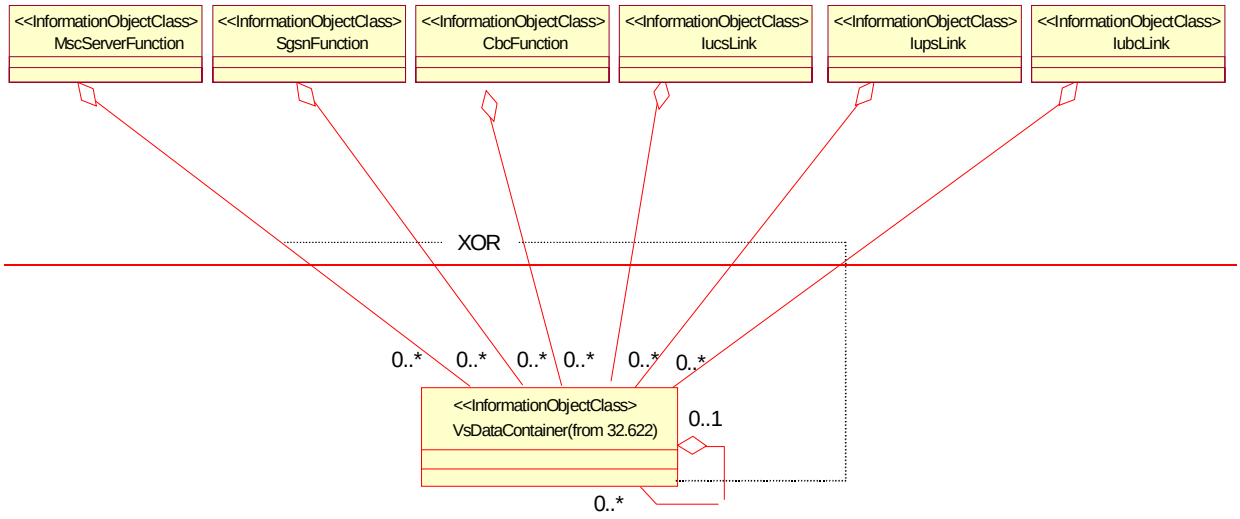
NOTE 1: The association between MscServer and GsmCell, and SgsnFunction and GsmCell is optional. It may be valid if both the MscServer and GsmCell, or SgsnFunction and GsmCell are managed by the same management node.

NOTE 2: The association between MscServer and CsMgwFunction is optional and is only mandatory when they belong to different ManagedElements.

Figure 6.2.1.4: CN GERAN NRM Containment/Naming and Association (diagram 4)

Each Managed Object is identified with a Distinguished Name (DN) according to 3GPP TS 32.300 [13] that expresses its containment hierarchy. As an example, the DN of a Managed Object representing a cell could have a format like:

SubNetwork=Sweden,MeContext=MEC-Gbg-1,ManagedElement=MSC-Gbg-1,MscServerFunction=MSC-1.



~~NOTE: Each instance of the vsDataContainer shall only be contained under one IOC. The vsDataContainer can be contained under IOCs defined in other NRMs.~~

~~Figure 6.2.1.5: vsDataContainer Containment/Naming and Association in CN NRM~~

~~The vsDataContainer is only used for the Bulk CM IRP.~~

End of Change in Clause 6.2.1
End of Document

Annex A (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Dec 2001	S_14	SP-010649	001	--	Removal of MOC FnrFunction from the diagrams	4.0.0	4.1.0
Jun 2002	S_16	SP-020302	002	--	Align with Rel-4 Network Architecture (23.002) by changing Roaming Signalling Gateway (R-SGW) to Signalling Gateway (SGW)	4.1.0	4.2.0
Sep 2002	S_17	SP-020489	003	--	Upgrade to Rel-5 the Network Resource Model for Core Network Management (add Managed Object Classes (MOCs)) [NOTE: Align with Rel-5 Network Architecture]	4.2.0	5.0.0
Dec 2002	S_18	SP-020747	004	--	Removal of faulty attribute uraList	5.0.0	5.1.0
Mar 2003	S_19	SP-030142	006	--	CN Network Resource Model changed to the New Methodology - alignment with 32.102 (Telecommunication management; Architecture)	5.1.0	5.2.0
Jun 2003	S_20	SP-030281	007	--	CN Network Resource Model changed to the New Methodology - alignment with 32.102	5.2.0	5.3.0
Sep 2003	S_21	SP-030419	009	--	Correction of Information Object Classes (IOCs) Notifications - Alignment with 32.102	5.3.0	5.4.0

CR-Form-v7

CHANGE REQUEST

⌘ 32.642 CR 018 ⌘rev - ⌘ Current version: 5.2.0 ⌘

*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 [ ]

Title:	⌘	Remove redundant VsDataContainer Containment UML - Now covered by 32.622
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-NIM
Date:	⌘	21/11/2003
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:	⌘	VsDataContainer containment is too limited. As a result all required vendor specific NRM data can not be fully managed over Itf-N.
Summary of change:	⌘	Other 32.622 CR includes VsDataContainer containment under ManagedFunction and ManagedElement. As a result remove redundant VsDataContainer UML from this specification.
Consequences if not approved:	⌘	It will not be possible to manage over Itf-N all necessary vendor specific data attributes associated with standard NRM IOCs. 32.642 will partially duplicate 32.622.

Clauses affected:	⌘	6.2.2

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments: ⌘ Dependent on VsDataContainer usage being extended by corresponding 32.622 CR.

Change in Clause 6.2.2

6.2.2 Inheritance

This sub-clause depicts the inheritance relationships that exist between IOCs.

Figure 6.2 shows the inheritance hierarchy for the UTRAN NRM.

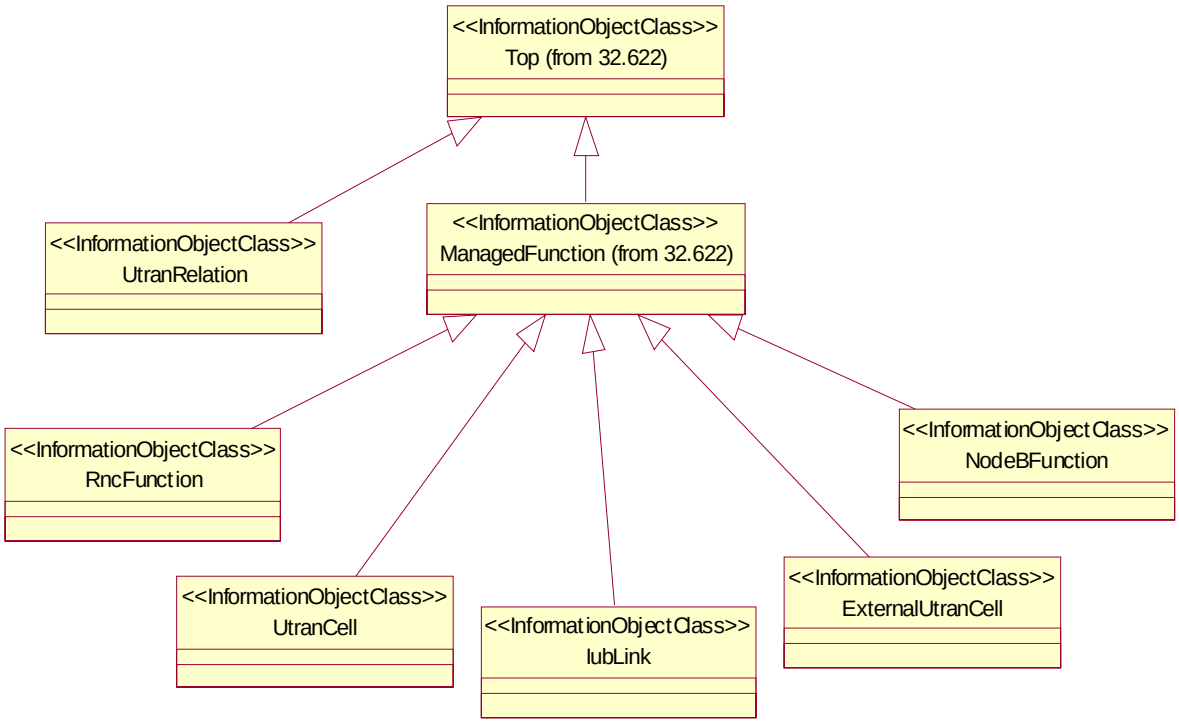
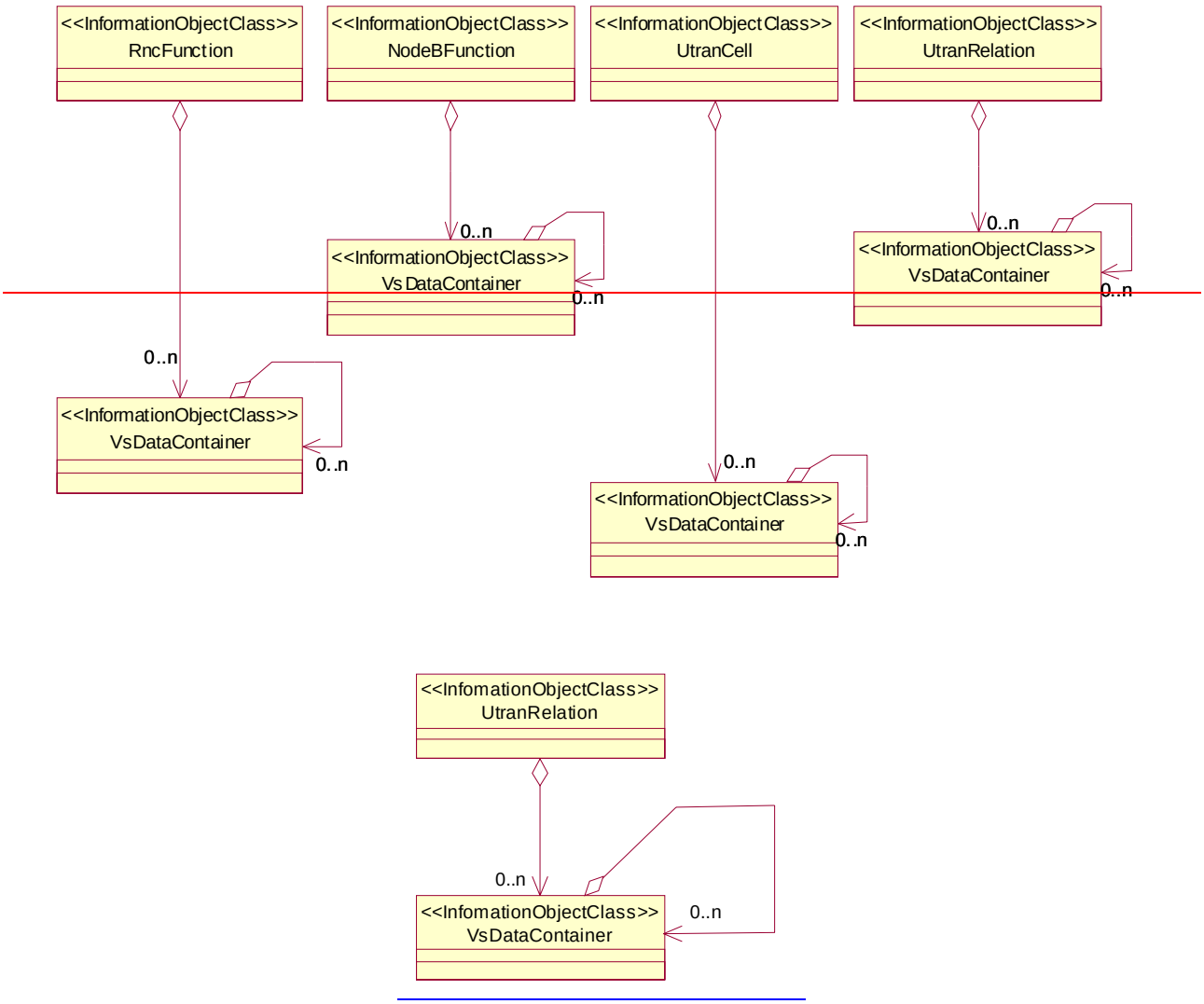


Figure 6.2: UTRAN NRM Inheritance Hierarchy



NOTE 1: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

NOTE 2: Each instance of the vsDataContainer shall only be contained under one IOC. The vsDataContainer can be contained under IOCs defined in other NRMs.

Figure 6.3: vsDataContainer Containment/Naming and Association in UTRAN NRM diagram

The vsDataContainer is only used for the Bulk CM IRP.

End of Change in Clause 6.2.2
End of Document

Annex B (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Jun 2002	S_16	SP-020303	001	--	Corrections of reference in figure 6.2 and of attribute descriptions in UtranRelation in 32.642 (UTRAN network resources IRP: NRM)	4.0.0	4.1.0
Jun 2002	S_16	SP-020304	002	--	Correction of supported IRP in system context	4.0.0	4.1.0
Sep 2002	S_17	SP-020490	003	--	UML corrections	4.1.0	4.2.0
Sep 2002	S_17	SP-020492	004	--	Add the new IRP IS methodology defined in 32.102	4.2.0	5.0.0
Sep 2002	S_17	SP-020492	005	--	Add State Management	4.2.0	5.0.0
Dec 2002	S_18	SP-020748	006	--	Inclusion of valid values and ranges for UTRAN Cell parameters	5.0.0	5.1.0
Jan 2003	--	--	--	--	Accepted all revision marks	5.1.0	5.1.1
Jun 2003	S_20	SP-030282	008	--	Include notification tables	5.1.1	5.2.0
Jun 2003	S_20	SP-030282	010	--	Correction of UML diagram vsDataContainer Containment/Naming and Association in UTRAN NRM	5.1.1	5.2.0
Jun 2003	S_20	SP-030283	012	--	Deletion of UTRAN attribute relationType	5.1.1	5.2.0

CR-Form-v7

CHANGE REQUEST

⌘ 32.652 CR C017 ⌘rev - ⌘ Current version: 5.2.0 ⌘

*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:	⌘	Remove redundant VsDataContainer Containment UML - Now covered by 32.622
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-NIM
Date:	⌘	21/11/2003
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:	⌘	VsDataContainer containment is too limited. As a result all required vendor specific NRM data can not be fully managed over Itf-N.
Summary of change:	⌘	Other 32.622 CR includes VsDataContainer containment under ManagedFunction and ManagedElement. As a result remove redundant VsDataContainer UML from this specification.
Consequences if not approved:	⌘	It will not be possible to manage over Itf-N all necessary vendor specific data attributes associated with standard NRM IOCs. 32.652 will partially duplicate 32.622.

Clauses affected:	⌘	6.2.1

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	Dependent on VsDataContainer usage being extended by corresponding 32.622 CR.

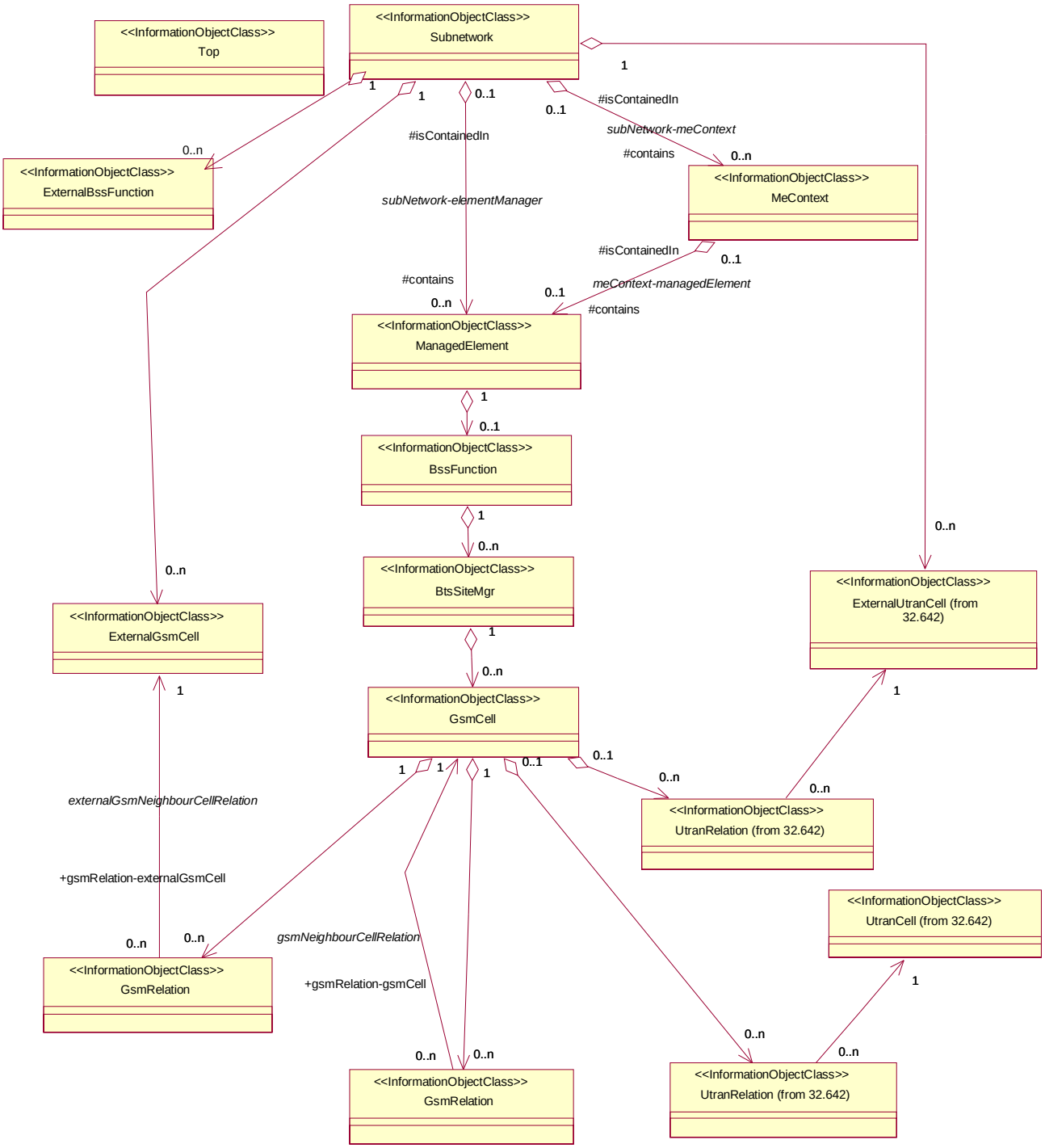
Change in Clause 6.2.1

6.2.1 Attributes and relationships

This sub-clause depicts the set of IOCs that encapsulate information relevant for this service. This sub-clause provides the overview of all information object classes in UML. Subsequent sub-clauses provides more detailed specification of various aspects of these information object classes.

Figure 6.1 show the containment/naming hierarchy and the associations of the GERAN NRM.

NOTE: The name-containment relations between IOCs are in the diagram(s) below indicated by UML "Aggregation by reference" ("hollow diamonds").

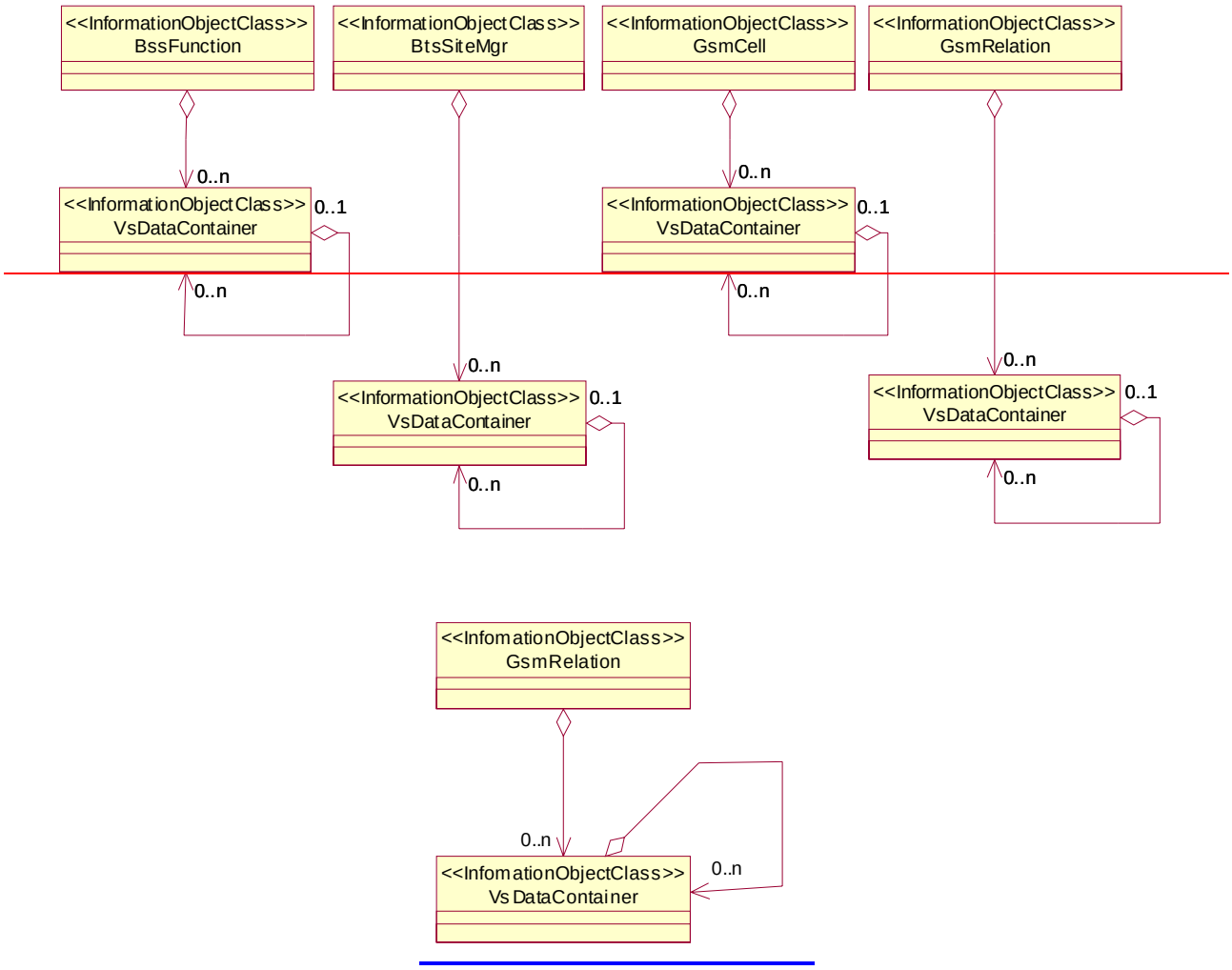


NOTE 1: ManagedElement may be contained in either a SubNetwork or an MeContext instance, or have no parent instance at all. See also [16].
NOTE 2: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.
NOTE 3: The relation between UtranRelation and UtranCell is optional. It may be present if both the UtranCell and the GsmCell are managed by the same management node.
NOTE 4: The GsmRelation and UtranRelation can be contained under IOCs defined in other NRMs.
NOTE 5: The ExternalBssFunction is used in the Core Network NRM.

Figure 6.1: GERAN NRM Containment/Naming and Association diagram

Each Managed Object is identified with a Distinguished Name (DN) according to 3GPP TS 32.300 [13] that expresses its containment hierarchy. As an example, the DN of an IOC representing a cell could have a format like:

SubNetwork=Sweden,MeContext=MEC-Gbg-1,ManagedElement=RNC-Gbg-1, BssFunction=BSS1.



NOTE 1: The listed cardinality numbers represent transient as well as steady-state numbers, and reflect all managed object creation and deletion scenarios.

NOTE 2: Each instance of the vsDataContainer shall only be contained under one MOC. The vsDataContainer can be contained under MOCs defined in other NRMs.

Figure 6.2: GERAN NRM Containment/Naming and Association diagram

The vsDataContainer is only used for the Bulk CM IRP.

End of Change in Clause 6.2.1
End of Document

Annex A (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Sep 2001	S_13	SP-010477	001	--	Addition of mcc and mnc in the object model of GERAN	4.0.0	4.1.0
Dec 2001	S_14	SP-010650	002	--	Correction of references	4.1.0	4.2.0
Jun 2002	S_16	SP-020305	003	--	Addition of the attributes mcc and mnc in the object model of GERAN	4.2.0	4.3.0
Jun 2002	S_16	SP-020305	004	--	Correction of attribute descriptions in the Managed Object Class (MOC) GsmRelation of 32.652 (GERAN network resources IRP: NRM)	4.2.0	4.3.0
Jun 2002	S_16	SP-020304	005	--	Correction of supported IRP in system context	4.2.0	4.3.0
Sep 2002	S_17	SP-020494	006	--	UML corrections	4.3.0	4.4.0
Sep 2002	S_17	SP-020496	007	--	Add State Management	4.4.0	5.0.0
Dec 2002	--	--	--	--	Cosmetics	5.0.0	5.0.1
Jun 2003	S_20	SP-030282	010	--	Include notification tables	5.0.1	5.1.0
Jun 2003	S_20	SP-030282	012	--	Correction of UML diagram vsDataContainer Containment/Naming and Association in GERAN NRM	5.0.1	5.1.0
Jun 2003	S_20	SP-030283	014	--	Deletion of GERAN attribute relationType	5.0.1	5.1.0
Sep 2003	S_21	SP-030418	015	--	Inclusion of External BSS Function in GERAN NRM - Alignment with 32.632	5.1.0	5.2.0