Technical Specification Group Services and System Aspects
Meeting #16, Marco Island, Florida, 10-13 June 2002

TSGS#16(02)0299

Source: **SA5 (Telecom Management)**

Title: **Rel-4 CR 32.622 (Generic network resources IRP: NRM) : Remove R99-inherited restriction of self-containment for MOC SubNetwork**

Document for: **Approval**

Agenda Item: **7.5.3**

Doc-1st-Level	Spec	CR	R	Phase	Subject	Cat	Ver Cur	Ver New	Doc-2nd-Level	Workitem
SP-020299	32.622	005	-	Rel-4	Remove R99-inherited restriction of self-containment for MOC SubNetwork	F	4.2.0	4.3.0	S5-026043	OAM-CM

3GPP TSG-SA5 (Telecom Management) **S5-026043**
Meeting #27, Cork, IRELAND, 2 - 5 April 2002

CR-Form-v5

CHANGE REQUEST

⌘ **32.622** **CR** **005** ⌘ **rev** **-** ⌘ Current version: **4.2.0** ⌘

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

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

Title:	⌘	Remove R99-inherited restriction of self-containment for MOC SubNetwork
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	05/04/2002
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:	⌘	Rel-4 inherited the R99 restriction of self-containment for MOC SubNetwork. Without GSM legacy system evolution, this prevents providing a unified Itf-N for UMTS/GSM combined networks, as follows. Local non-Itf-N configuration of GSM legacy networks cannot realistically be made dependent of local non-Itf-N configuration of UMTS new networks. This implies that UMTS and GSM sub-networks are presented on Itf-N as two distinct instances of MOC SubNetwork contained under a third instance of MOC SubNetwork corresponding to the UMTS/GSM combined network. Otherwise preventing identifier conflicts for instances of MOC ManagedElement contained under a given instance of MOC SubNetwork would only be possible with unreasonable development efforts.
Summary of change:	⌘	• Remove R99-inherited restriction of self-containment for MOC SubNetwork. • Remove R99-inherited restriction limiting the number of SubNetwork MOIs to maximum one. • Add constraint, when several SubNetwork MOIs exist, for exactly one SubNetwork MOI to directly or indirectly contain all the other SubNetwork MOIs. • Add constraint for ManagementNode MOI to be contained in the root SubNetwork MOI. • Add constraint for IRPAgent MOI, if contained in a SubNetwork MOI, to be contained in the root SubNetwork MOI.
Consequences if not approved:	⌘	Possibility to provide Itf-N for UMTS/GSM combined networks, without GSM legacy system evolution, is jeopardized (Itf-N for UMTS/GSM combined networks is a Rel-4 valid implementation option, see "Other comments").

Clauses affected:	⌘	6.1.2.1, 6.1.3.7.1, 6.1.4.2.3, 6.1.4.4.3, 6.1.4.5.3, 8.2.1.2, 8.2.2.1, 8.2.2.4, 8.2.2.6
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications

Other comments:	⌘	This CR updates and replaces CR S5C020137 discussed at SA5#26. Rel-4 valid implementation option: A Bulk CM IRPAgent can provide CM capabilities for UMTS/GSM combined networks is indirectly expressed through the following Rel-4 statements: - 3G TS 32.612 V410 "3G CM; Bulk Configuration Management IRP: IS" Subclause 6.3 "Network Resource Model (NRM)" "NRMs for Bulk CM IRP are defined in other Network Resource IRP documents of CM. For Bulk CM IRP IS these are: 32.622: “3G CM; Generic Network Resources IRP: NRM” [4], 32.642: “3G CM; UTRAN Network Resources IRP: NRM” [5], 32.652: “3G CM; GERAN Network Resources IRP: NRM” [6]. These NRM documents define all the MOCs and attributes that can be configuration managed by Bulk CM IRP IS." - 3G TS 32.642 V400 "3G CM; UTRAN Network Resources IRP: NRM" Subclause 6.2.2 "Containment/Naming and Association diagrams" Figure 6.2 "UTRAN NRM Containment/Naming and Association diagram" Note 2: "The association between GsmRelation and GsmCell is optional. It may be valid if both the UtranCell and the GsmCell are managed by the same management node." - 3G TS 32.652 V420 "3G CM; GERAN Network Resources IRP: NRM" Subclause "Containment/Naming and Association diagrams" Figure 6.2 "GERAN NRM Containment/Naming and Association diagram" Note 2: "The association between UtranRelation and UtranCell is optional. It may be valid if both the UtranCell and the GsmCell are managed by the same management node."

6.1.2.1 Attributes and relationships

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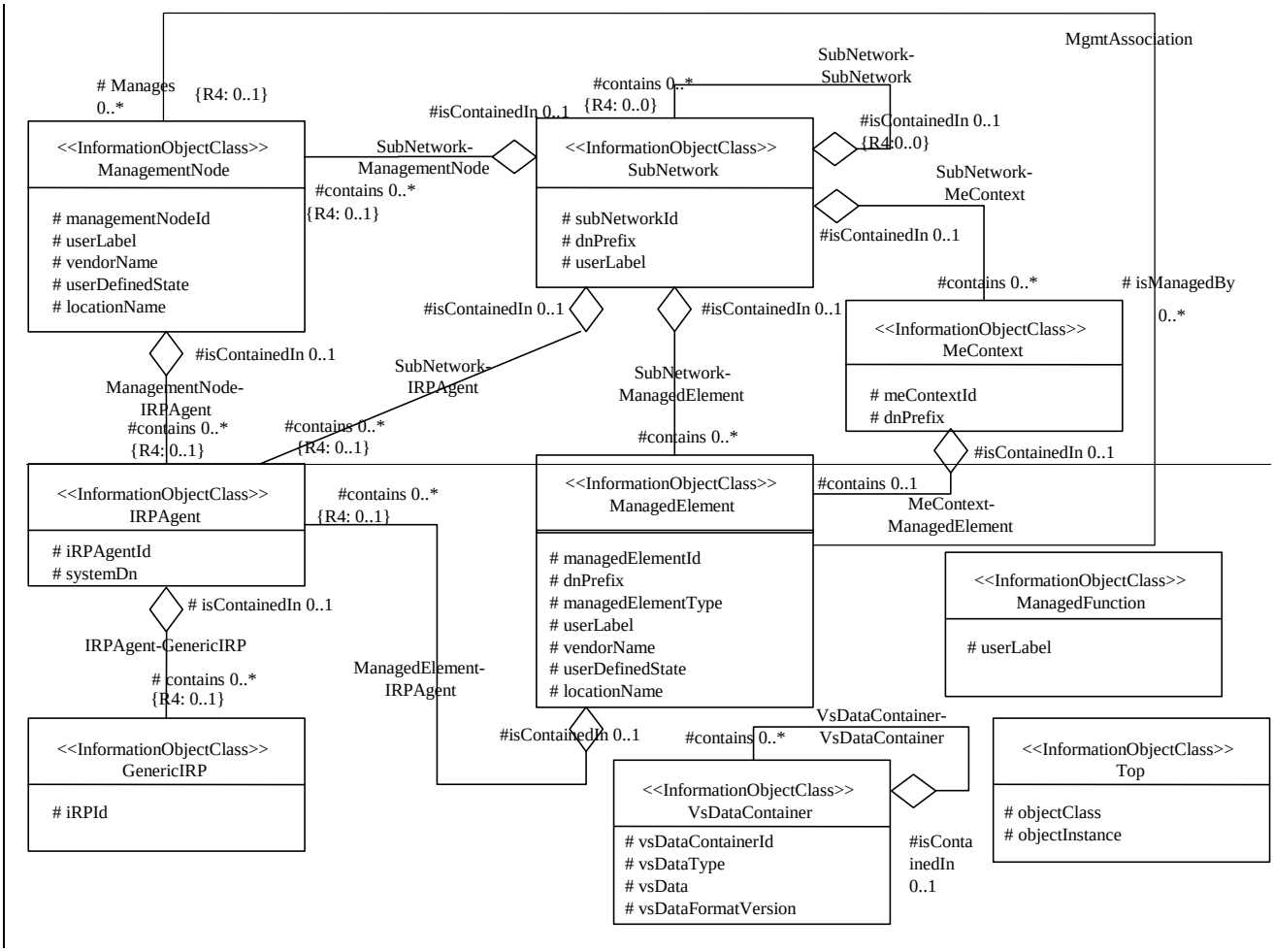

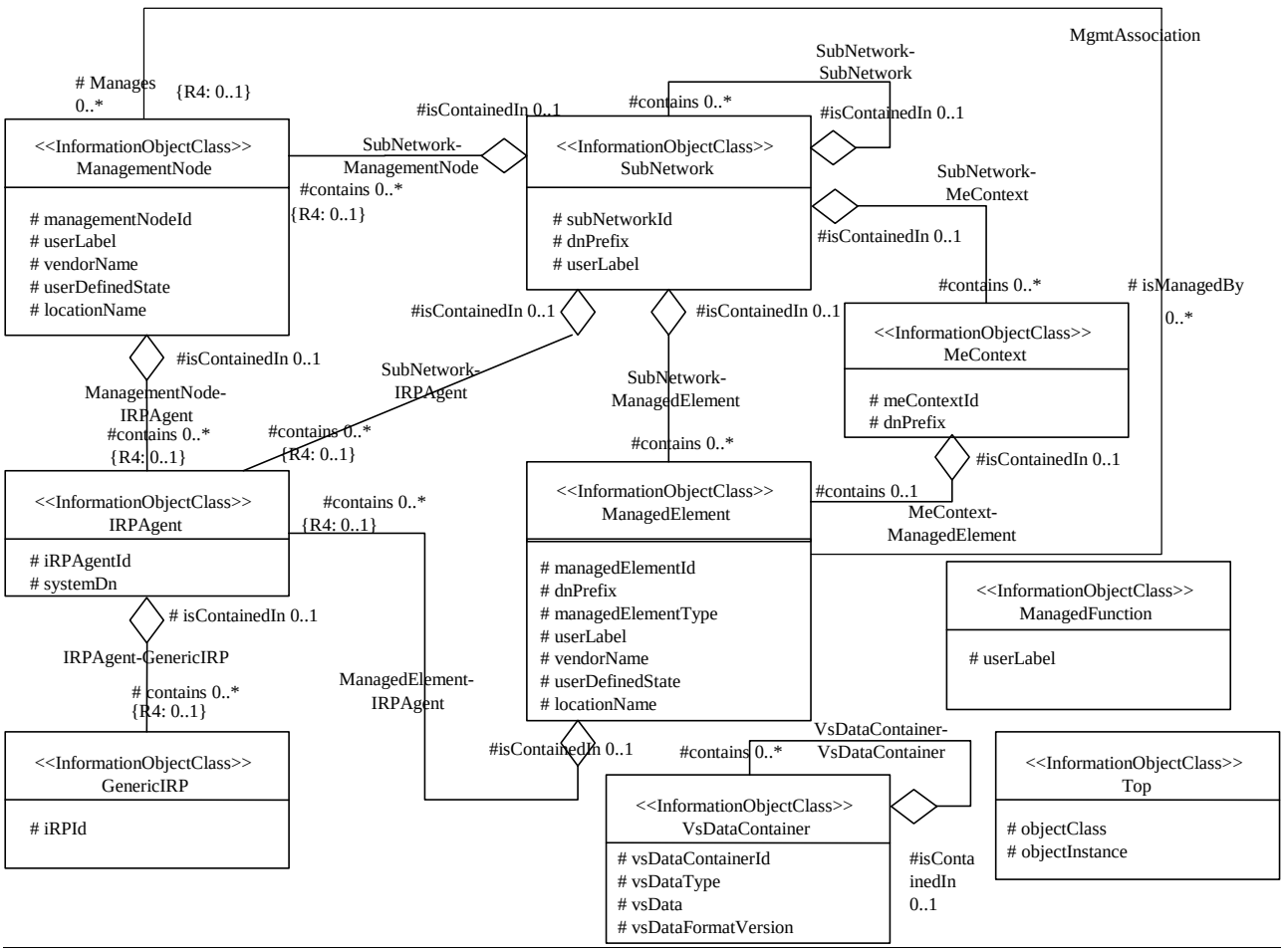

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NOTE 3: Each instance of the vsDataContainer shall only be contained under one MOC. The vsDataContainer can be contained under MOCs defined in other NRMs.

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: ~~If the configuration contains a SubNetwork,~~ The SubNetwork instance not contained in any other instance of SubNetwork is referred to as "the root SubNetwork instance" ~~is the SubNetwork instance not contained in any other instance of SubNetwork.~~

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 5: Generic NRM Containment/Naming and Association diagram

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6.1.3.7.1 Definition

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There may be zero or more instances of a SubNetwork. It shall be present if either a ManagementNode or multiple ManagedElements are present (i.e. ManagementNode and multiple ManagedElement instances shall have SubNetwork as parent). ~~Restriction in R4: N=1.~~

~~If the configuration contains an instance of SubNetwork,~~ The SubNetwork instance not contained in any other instance of SubNetwork is referred to as "the root SubNetwork instance" ~~is the SubNetwork instance not contained in any other instance of SubNetwork~~.

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6.1.4.2.3 Constraints

~~There is no constraint for this relationship.~~

Name	Definition
ManagementNodeContainedInRootSubNetwork	" An instance of the ManagementNode IOC shall be contained in the root SubNetwork instance. "

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6.1.4.4.3 Constraints

Name	Definition
~~Rel4SubNetworkSubNetworkRestriction~~	~~" In Release 4, this relationship cannot be instantiated, due to the fact that the maximum number of instances of the SubNetwork IOC is 1. "~~
OneSubNetworkContainsAllOthers	" If the configuration contains several instances of the SubNetwork IOC, exactly one SubNetwork instance shall directly or indirectly contain all the other SubNetwork instances. "

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6.1.4.5.3 Constraints

~~There is no constraint for this relationship.~~

Name	Definition
IRPAgentContainedInRootSubNetwork	" If an instance of the IRPAgent IOC is contained in a SubNetwork instance, this instance shall be the root SubNetwork instance. "

8.2.1.2 Containment/Naming and Association diagram

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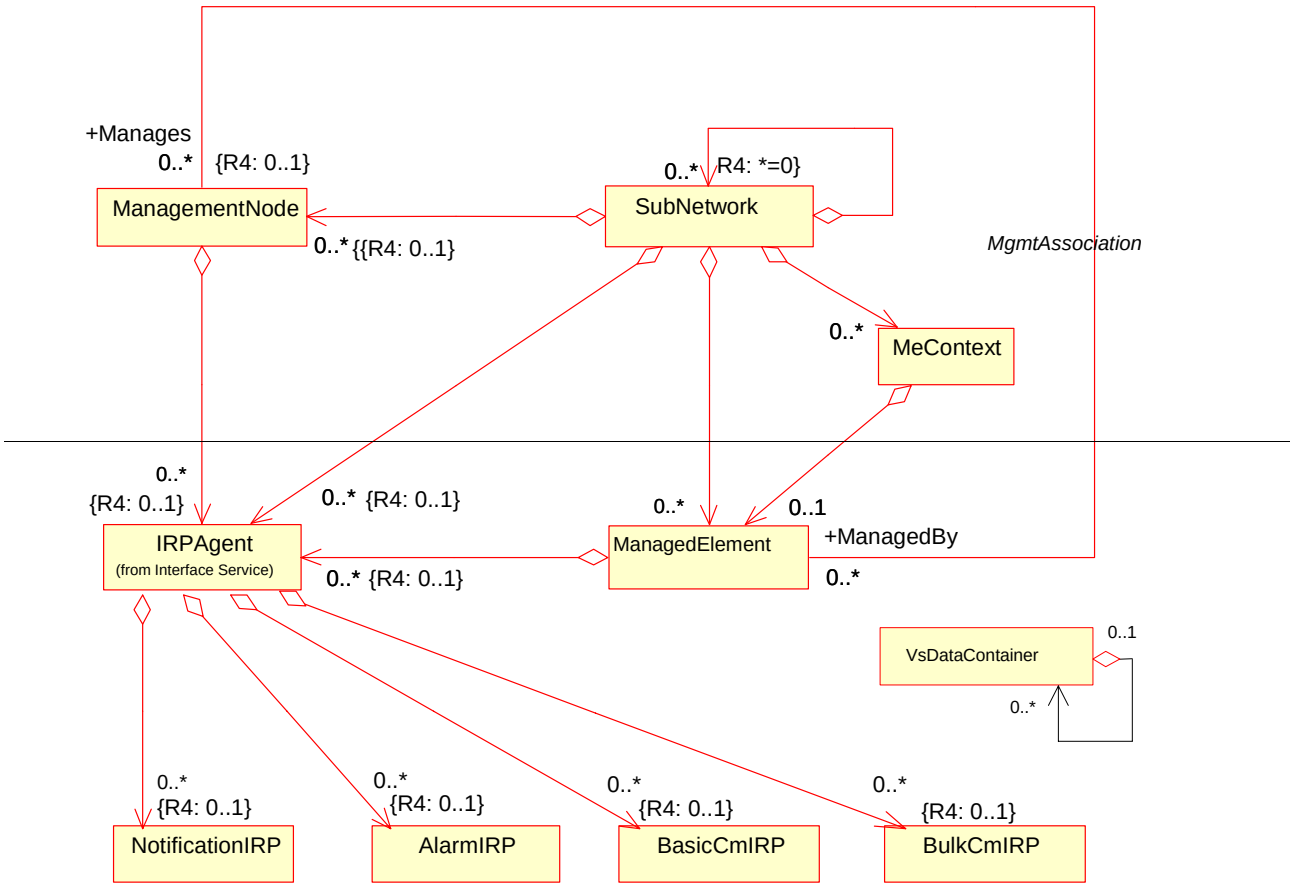

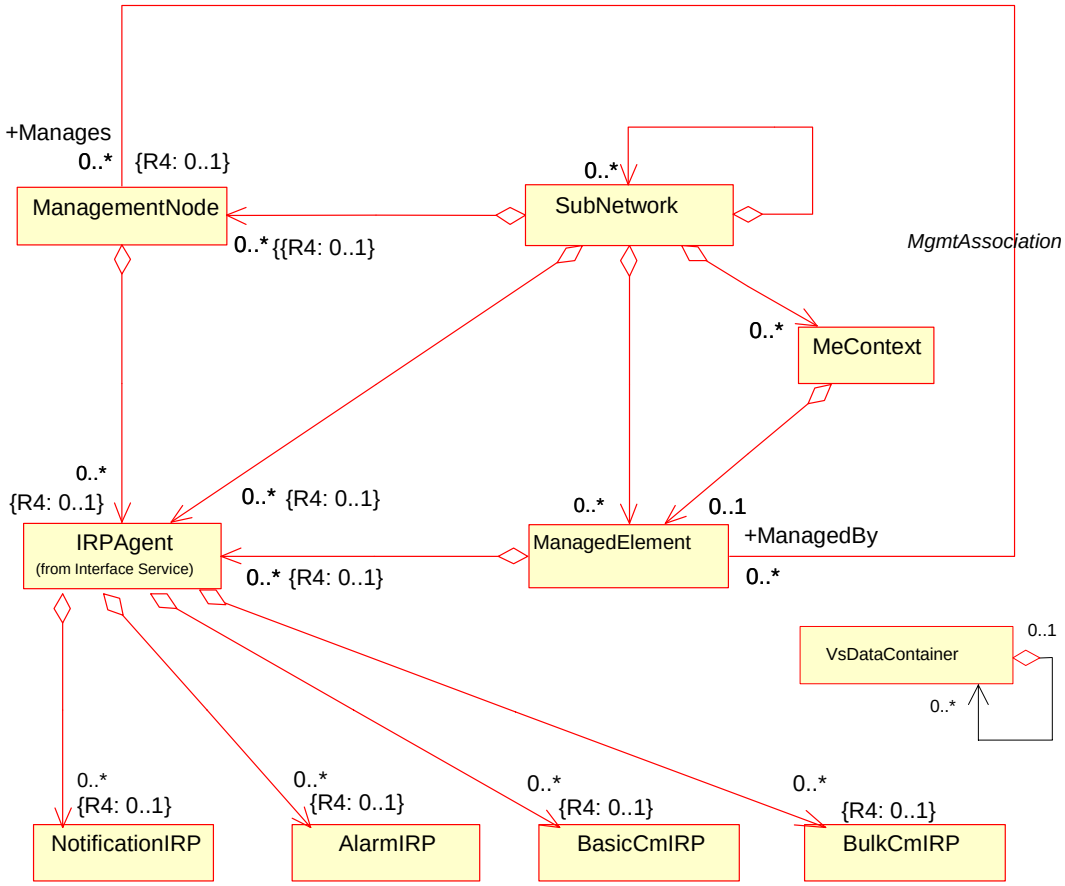

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NOTE 3: Each instance of the vsDataContainer shall only be contained under one MOC. The vsDataContainer can be contained under MOCs defined in other NRMs.

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: ~~If the configuration contains a SubNetwork,~~ The SubNetwork instance not contained in any other instance of SubNetwork is referred to as "the root SubNetwork instance" ~~is the SubNetwork instance not contained in any other instance of SubNetwork.~~

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 8: Generic NRM Containment/Naming and Association diagram

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8.2.2.1 MOC SubNetwork

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A SubNetwork may have 0...N instances. It shall be present if either a ManagementNode or multiple ManagedElements are present (i.e. ManagementNode and multiple ManagedElement instances shall have SubNetwork as parent).
~~Restriction in R4: N=1.~~

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

~~If the configuration contains an instance of SubNetwork,~~ The SubNetwork instance not contained in any other instance of SubNetwork is referred to as "the root SubNetwork instance" ~~is the SubNetwork instance not contained in any other instance of SubNetwork~~.

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8.2.2.4 MOC ManagementNode

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This class has similar characteristics as the ManagedElement. The main difference between these two classes is that the ManagementNode has a special association to the managed elements that it is responsible for managing.

A ManagementNode instance shall be contained in the root SubNetwork instance.

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8.2.2.6 MOC IRPAgent

This Managed Object Class represents the functionality of an IRPAgent. It shall be present. For a definition of IRPAgent, see 3GPP TS 32.102 [2].

If an IRPAgent instance is contained in a SubNetwork instance, this instance shall be the root SubNetwork instance.

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