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Doc-1st-	Spec	CR	R	Phas	Subject	C	Versi	Versi	Doc-2nd-	Workitem
SP-010641	32.300	001		Rel-4	**Alignment of Figure C.1 with text in Annex C**	F	4.0.0	4.1.0	S5-000663	OAM-CM

3GPP TSG-SA5 (Telecom Management) **S5-010663**
Meeting #23, Sundsvall, Sweden 15 - 19 October 2001 **S5C010434**

CR-Form-v4

CHANGE REQUEST

⌘ **32.300** **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:	⌘	Alignment of Figure C.1 with text in Annex C
Source:	⌘	SA5
Work item code:	⌘	OAM-CM
Date:	⌘	19/10/2001
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:	⌘	Figure C.1 (Name space partitions) contains DN prefix examples such as "DC=se.ericsson.lmc", whereas the explanatory text for this figure has "DC=se.companyZ.lmc".
Summary of change:	⌘	Replace, in Figure C.1, all "ericsson" with "companyZ".
Consequences if not approved:	⌘	Figure C.1 not consistent with explanatory text.

Clauses affected:	⌘	Annex C
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

Annex C (informative): DN Prefix and Local Distinguished Name (LDN)

A Distinguished Name (DN) is used to uniquely identify a MO within a name space. A DN is built from a series of "name components", referred to as Relative Distinguished Names (RDNs).

DNs within a name space are arranged in hierarchy similar to concepts of naming files in UNIX file system. A file name, in the context of a local subdirectory, contains the path (series of subdirectory names) of the file starting from the local subdirectory. The same file, in the global context, contains the path of the file starting from the root directory. Similar concept applies to naming MOs. From a particular (local) context, the name of a MO is the Local Distinguished Name (LDN). From a global context, the name of the same MO is the DN. LDN is a proper subset of DN. In the context of a particular local context, a DN prefix is defined such that all LDNs in that particular context, if attached behind the DN prefix of that context, will yield the DNs of the MOs.

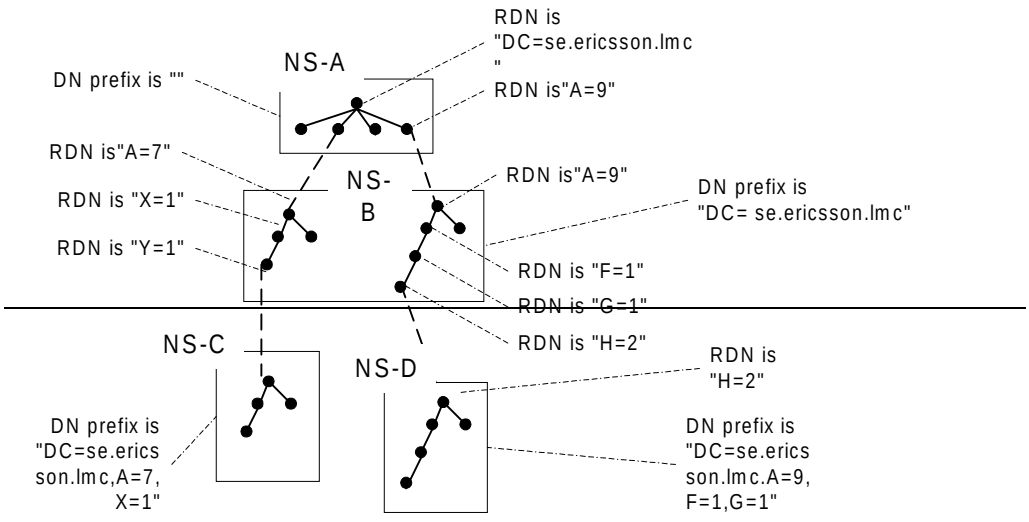
The concepts of DN Prefix and LDN support the partitioning of large name space into smaller ones for efficient name space implementation. DN design, the subject of the present document, does not depend on these concepts. There exist other concepts that support partitioning of large name space as well. Although these concepts are independent from DN design, their use is wide spread and this Annex illustrates their use in partitioning large name space.

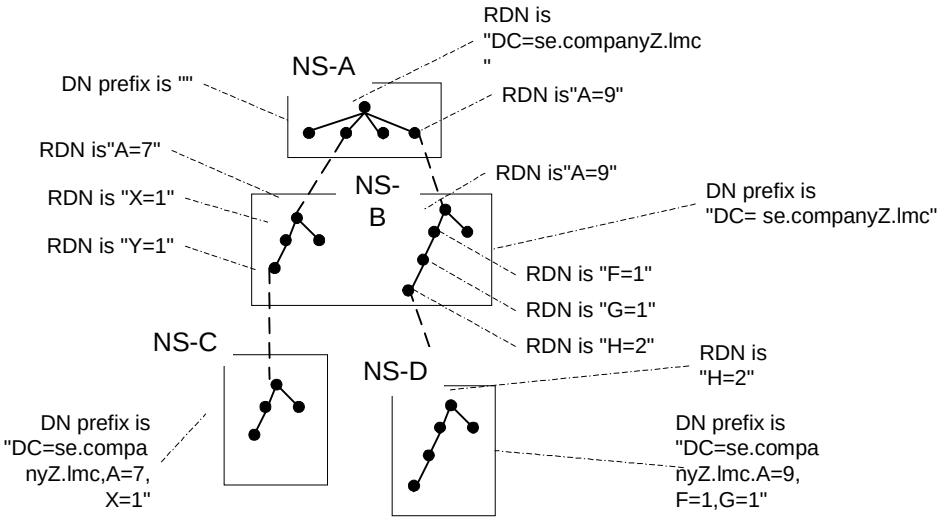
In modern network management, it is expected that the Enterprise name space be partitioned for implementations in multiple hosts. The following are reasons for the partitioning.

- The Enterprise name space can be large (e.g., containing millions of objects). Partition of a large name space facilitates name space management. For example, it may be easier to manage two name spaces of 1 million objects each than to manage one name space with two million objects.
- Separate IRPAgents manage sub-set of the Enterprise name space relevant to their own local environment. For example, one NE manages a name space (subset of the Enterprise name space) containing names of its MOs representing its own network resources. Another NE manages another sub-set, etc.
- For reasons such as security, replication, back-up policy and performance, sub-sets of the Enterprise name space are managed by separate systems. For example, Operation and Marketing departments may want to manage their name spaces using their respective management policies. Partitioning of Enterprise name space according to departmental jurisdiction may facilitate deployment of independent management policies.

Suppose the Enterprise name space is organized hierarchically and is partitioned into 4 sub-sets as shown in figure C.1.

Figure C.1: Name space partitions





NS (name space)-A contains 5 objects. DN prefix is NULL. The Global Root and Local Root of NS-A is "`DC=se.companyZ.lmc`" (see the Note below). DN of top object is "`DC=se.companyZ.lmc`". RDNs of the other four objects are, from bottom left to bottom right, "`A=1`", "`A=7`", " `A=3`" and "`A=9`". DNs of the same four objects are "`DC=se.companyZ.lmc,A=1`", "`DC=se.companyZ.lmc,A=7`", "`DC=se.companyZ.lmc,A=3`" and "`DC=se.companyZ.lmc,A=9`". The second and fourth objects are reference objects to MOs in NS-B.

NS-B contains two branches. They have the same DN prefix that is "`DC=se.companyZ.lmc`". The Global Root is "`DC=se.companyZ.lmc`".

The Local Root and RDN of top object of the right branch is "`A=9`". Its DN is "`DC=se.companyZ.lmc,A=9`". RDNs of other objects are shown in figure C.1.
DN of the bottom object is "`DC=se.companyZ.lmc,A=9,F=1,G=1,H=2`". This object refers to object of another name space called NS-D.

The Local Root and RDN of the top object of the left branch is "`A=7`". Its DN is "`DC=se.companyZ.lmc,A=7`". RDNs of other objects are shown in figure C.1.
DN of the bottom object is "`DC=se.companyZ.lmc,A=7,X=1,Y=1`". This object refers to object of another name space called NS-C.

NS-C contains a branch of 4 objects. Its DN prefix is "`DC=se.companyZ.lmc,A=7,X=1`". The Local Root an RDN of the top object is "`Y=1`".

NS-D contains a branch of 5 objects. Its DN prefix is "`DC=se.companyZ.lmc,A=9,F=1,G=1`". The Local Root and RDN of the top object is "`H=2`".

In figure C.1, the bottom object of NS-B right branch has the following names:

- DN is "`DC=se.companyZ.lmc,A=9,F=1,G=1,H=2`".
- LDN is "`A=9,F=1,G=1,H=2`".
- RDN is "`H=2`".

With this example, we can see that DN of an object is a series of RDNs spanning the global name space. LDN of an object is a series of RDNs spanning the local name space where the subject MO resides.

The concatenation of the LDN with DN prefix of that (partitioned) name space shall produce the DN of the global name space.

NOTE: Use of “DC” in “DC=se.companyZ.lmc” is an attempt to align the RDN with DNS name associated with the named organisation. The “DC” stands for Domain Component and is an attribute name defined by IETF for use in directory work. Annex A specifies other valid ways to align RDN with DNS as well. Equally valid, the example can choose to align the RDN with the X.500 convention. In such case, the subject string can be “C=se,O=CompanyZ,L=lmc” where C, O and L are X.500 standard attributes denoting country, organisation and location respectively. The alignment choice belongs to the name space designer of each operator. The choice will be reflected in the value of the DN prefix, probably a product configuration parameter. See Clause 7 for more information.